

**SEARCH REQUEST FORM**

Scientific and Technical Information Center

Requester's Full Name: R GITOMEA Examiner # 269036 Date: 7/29/02  
Art Unit: 1677 Phone Number 308-0732 Serial Number: 09/695, 807  
Mail Box and Bldg/Room Location: 3819 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Library  
CM1 1E07 - 703-308-4486  
jan.delaval@uspto.gov

**STAFF USE ONLY**

Searcher: an  
Searcher Phone #: 4498  
Searcher Location: \_\_\_\_\_  
Date Searcher Picked Up: 8/5/02  
Date Completed: 8/5/02  
Searcher Prep & Review Time: \_\_\_\_\_  
Clerical Prep Time: 20  
Online Time: + 65

**Type of Search**

NA Sequence (#) \_\_\_\_\_ STN ☒  
AA Sequence (#) \_\_\_\_\_ Dialog \_\_\_\_\_  
Structure (#) ☒ Questel/Orbit \_\_\_\_\_  
Bibliographic \_\_\_\_\_ Dr.Link \_\_\_\_\_  
Litigation \_\_\_\_\_ Lexis/Nexis \_\_\_\_\_  
Fulltext \_\_\_\_\_ Sequence Systems \_\_\_\_\_  
Patent Family \_\_\_\_\_ WWW/Internet \_\_\_\_\_  
Other \_\_\_\_\_ Other (specify) \_\_\_\_\_

**Vendors and cost where applicable**

=&gt; fil reg

FILE 'REGISTRY' ENTERED AT 15:30:06 ON 05 AUG 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 American Chemical Society (ACS)

Jan Delaval  
Reference Librarian  
Biotechnology & Chemical Librarian  
CM1 1E07 - 703-308-4498  
jan.delaval@uspto.gov

STRUCTURE FILE UPDATES: 4 AUG 2002 HIGHEST RN 442512-16-5

DICTIONARY FILE UPDATES: 4 AUG 2002 HIGHEST RN 442512-16-5

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

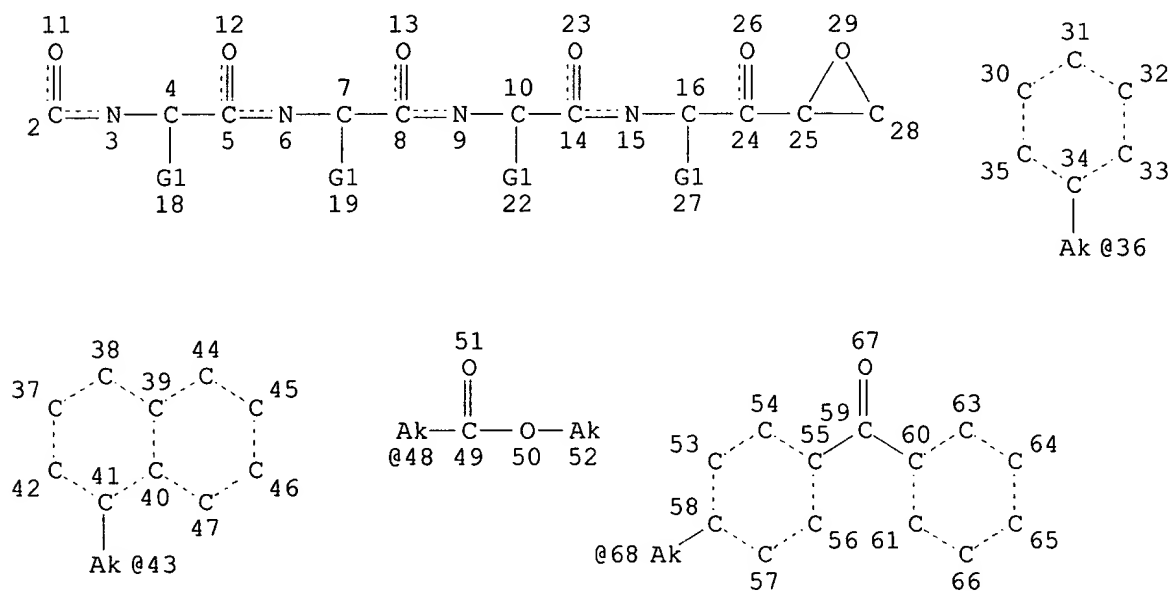
Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES  
for more information. See STNote 27, Searching Properties in the CAS  
Registry File, for complete details:

<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=&gt; d sta que 123

L20 STR



VAR G1=AK/36/43/48/68

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 2

CONNECT IS M1 RC AT 25

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 30 37 56 60

NUMBER OF NODES IS 63

STEREO ATTRIBUTES: NONE

L23 27 SEA FILE=REGISTRY SSS FUL L20

100.0% PROCESSED 1450 ITERATIONS

SEARCH TIME: 00.00.04

27 ANSWERS

=> d his

(FILE 'HOME' ENTERED AT 14:51:46 ON 05 AUG 2002)  
SET COST OFF

FILE 'REGISTRY' ENTERED AT 14:51:57 ON 05 AUG 2002

L1 1 S PROTEASOME/CN  
L2 1 S CHYMOTRYPSIN/CN  
L3 5 S 6493-05-6 OR 133343-34-7 OR 134381-21-8 OR 158442-41-2 OR 179  
L4 1 S NLVS/CN  
L5 3 S C28H43IN4O8S/MF AND 46.150.18/RID AND 1/NR  
L6 41 S C32H50N4O8/MF  
L7 13 S L6 AND 4/SQL  
L8 3 S C28H50N4O7/MF AND OC2/ES  
L9 2 S L8 NOT T/ELS  
L10 6 S C15H24N2O7S/MF AND NC4/ES  
L11 5 S L10 NOT GLYCINE  
L12 3 S L11 NOT T/ELS  
L13 1 S C19H25BN4O4/MF AND NC2NC2/ES  
L14 1 S L3 AND L7  
L15 2 S L5 NOT 125I  
L16 10 S L3,L4,L9,L12,L13,L14,L15  
L17 28 S C34H48N4O5/MF  
L18 2 S L17 AND OC2/ES  
L19 12 S L16,L18  
L20 STR  
L21 1 S L20 CSS  
L22 2 S L20  
L23 27 S L20 FUL  
SAV L23 GITOMER695/A  
L24 15 S L20 CSS FUL SUB=L23  
SAV L24 GITOMER695A/A  
L25 12 S L23 NOT L24  
L26 8 S L25 NOT (C5-C6-C6 OR NCNC2-SC4)/ES  
L27 6 S L26 NOT (T OR SI)/ELS  
L28 16 S L19,L27

FILE 'HCAPLUS' ENTERED AT 15:15:12 ON 05 AUG 2002

L29 2069 S L28  
L30 1598 S L29 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
L31 73 S L30 AND L1  
L32 8 S L30 AND L2  
E BONE/CT  
E E3+ALL  
L33 72376 S E8+NT  
E E56+ALL  
L34 3731 S E4+NT  
L35 314 S E8+NT  
L36 2882 S E9+NT  
L37 2828 S E10+NT  
E BONE/CT  
E E3+ALL  
E E58+ALL  
L38 52158 S E3+NT  
E OSTEOPOROSIS/CT  
E E3+ALL  
L39 7181 S E6+NT  
E HYPERPARATHYROIDISM/CT  
E E3+ALL  
L40 1544 S E2  
L41 988 S METAST?(L) BONE(L) (DISEASE OR DISORDER)

L42 1026 S BONE, DISEASE/CT (L) FRACTURE  
 L43 803 S BONE, NEOPLASM/CT (L) METAST?  
 L44 141 S OSTEOLYT? (L) BONE (L) (DISEASE OR DISORDER)  
 L45 2637 S BONE (L) (SURGERY OR SURGICAL OR POSTPLASTIC OR POST PLASTIC)  
 L46 29 S L30 AND L33-L45  
 L47 2 S L31, L32 AND L46  
 L48 3 S PROSTH?/CW AND L30  
 L49 1 S ISOPRENOID AND L30  
 L50 4 S L47-L49  
 L51 31 S L46, L50  
 L52 2 S L30 AND (MUNDY G? OR GARRETT I? OR ROSSINI G?)/AU  
 L53 2 S OSTEOSCREEN?/PA, CS AND L30  
 L54 32 S L51-L53  
 L55 30 S L54 AND (1 OR 63)/SC, SX  
 L56 2 S L54 NOT L55  
 L57 22 S L55 AND (BONE OR OSTEO? OR JOINT OR CARTILAG? OR SKELET? OR H  
 L58 18 S L55 AND (FRACTURE OR PROSTHE? OR ?NEOPLAS? OR ?TUMOR? OR ?MET  
 L59 28 S L57, L58  
 L60 2 S L55 NOT L59  
 L61 1 S L60 NOT DEXAMETHASONE  
 L62 29 S L59, L61  
 L63 25 S L62 AND (1 OR 63)/SC  
 L64 4 S L62 NOT L63  
 SEL HIT RN L63

FILE 'REGISTRY' ENTERED AT 15:29:28 ON 05 AUG 2002

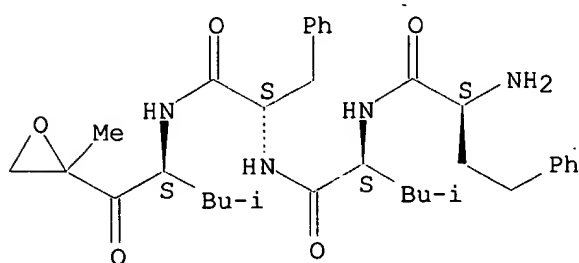
L65 4 S E1-E4  
 L66 18 S L1, L2, L28, L65

FILE 'REGISTRY' ENTERED AT 15:30:06 ON 05 AUG 2002

=> d ide can tot l66

L66 ANSWER 1 OF 18 REGISTRY COPYRIGHT 2002 ACS  
 RN 336099-21-9 REGISTRY  
 CN L-Phenylalaninamide, (.alpha.S)-.alpha.-aminobenzenebutanoyl-L-leucyl-N-  
 [(1S)-3-methyl-1-[(2-methyloxiranyl)carbonyl]butyl]- (9CI) (CA INDEX  
 NAME)  
 FS STEREOSEARCH  
 MF C34 H48 N4 O5  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



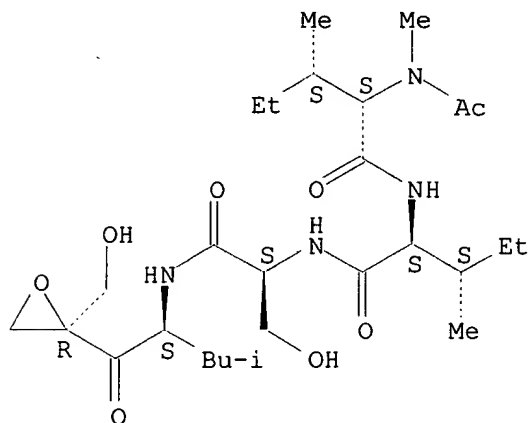
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 134:331618

L66 ANSWER 2 OF 18 REGISTRY COPYRIGHT 2002 ACS  
RN 259094-41-2 REGISTRY  
CN L-Serinamide, N-acetyl-N-methyl-L-isoleucyl-L-isoleucyl-N-[(1S)-1-[[ (2R)-2-(hydroxymethyl)oxiranyl]carbonyl]-3-methylbutyl]- (9CI) (CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C27 H48 N4 O8  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

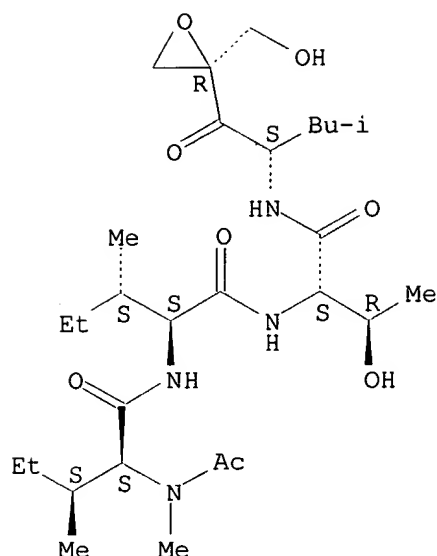


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:160826

L66 ANSWER 3 OF 18 REGISTRY COPYRIGHT 2002 ACS  
RN 259094-40-1 REGISTRY  
CN L-Threoninamide, N-acetyl-N-methyl-L-isoleucyl-L-isoleucyl-N-[(1S)-1-[[ (2R)-2-(hydroxymethyl)oxiranyl]carbonyl]-3-methylbutyl]- (9CI) (CA INDEX NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C28 H50 N4 O8  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

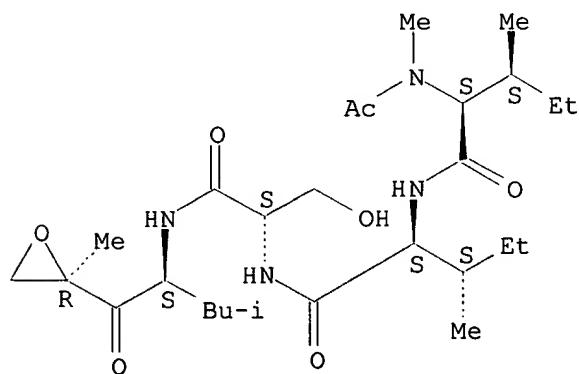


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:160826

L66 ANSWER 4 OF 18 REGISTRY COPYRIGHT 2002 ACS  
RN 259094-39-8 REGISTRY  
CN L-Serinamide, N-acetyl-N-methyl-L-isoleucyl-L-isoleucyl-N-[(1S)-3-methyl-1-  
[[ (2R)-2-methyloxiranyl]carbonyl]butyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C27 H48 N4 O7  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

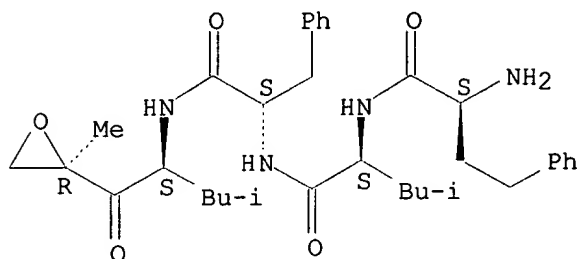
1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:160826

L66 ANSWER 5 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 254888-44-3 REGISTRY  
 CN L-Phenylalaninamide, (.alpha.S)-.alpha.-aminobenzenebutanoyl-L-leucyl-N-  
 [(1S)-3-methyl-1-[[[(2R)-2-methyloxiranyl]carbonyl]butyl]- (9CI) (CA INDEX  
 NAME)  
 FS STEREOSEARCH  
 MF C34 H48 N4 O5  
 SR CA  
 LC STN Files: CA, CAPLUS

Absolute stereochemistry.



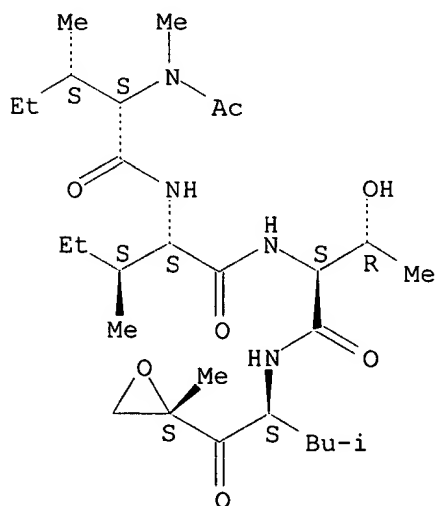
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 132:89911

L66 ANSWER 6 OF 18 REGISTRY COPYRIGHT 2002 ACS  
 RN 247068-94-6 REGISTRY  
 CN L-Threoninamide, N-acetyl-N-methyl-L-isoleucyl-L-isoleucyl-N-[(1S)-3-  
 methyl-1-[[[(2S)-2-methyloxiranyl]carbonyl]butyl]- (9CI) (CA INDEX NAME)  
 FS STEREOSEARCH  
 MF C28 H50 N4 O7  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.



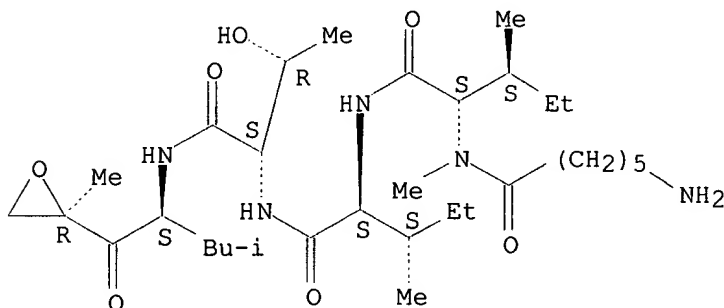
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:299679

L66 ANSWER 7 OF 18 REGISTRY COPYRIGHT 2002 ACS  
RN 247068-91-3 REGISTRY  
CN L-Threoninamide, N-(6-amino-1-oxohexyl)-N-methyl-L-isoleucyl-L-isoleucyl-N-  
[(1S)-3-methyl-1-[(2R)-2-methyloxiranyl]carbonyl]butyl]- (9CI) (CA INDEX  
NAME)  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C32 H59 N5 O7  
SR CA  
LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

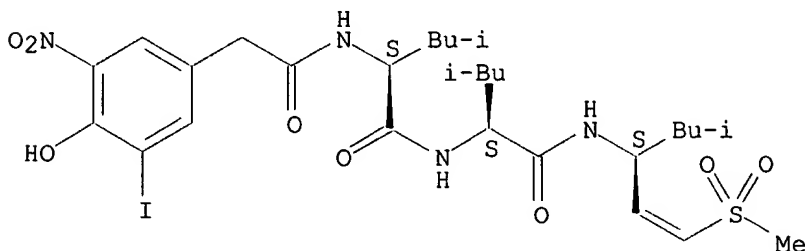


1 REFERENCES IN FILE CA (1967 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 131:299679

L66 ANSWER 8 OF 18 REGISTRY COPYRIGHT 2002 ACS  
RN 211518-46-6 REGISTRY  
CN L-Leucinamide, N-[(4-hydroxy-3-iodo-5-nitrophenyl)acetyl]-L-leucyl-N-[(1S)-  
3-methyl-1-[2-(methylsulfonyl)ethenyl]butyl]- (9CI) (CA INDEX NAME)  
FS STEREOSEARCH  
MF C28 H43 I N4 O8 S  
SR CA  
LC STN Files: CA, CAPLUS

Absolute stereochemistry.  
Double bond geometry unknown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1967 TO DATE)

## 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 129:172314

L66 ANSWER 9 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 193482-49-4 REGISTRY

CN L-Leucinamide, N-[(4-hydroxy-3-iodo-5-nitrophenyl)acetyl]-L-leucyl-N-[(1S)-3-methyl-1-[(1E)-2-(methylsulfonyl)ethenyl]butyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN NLVS

FS STEREOSEARCH

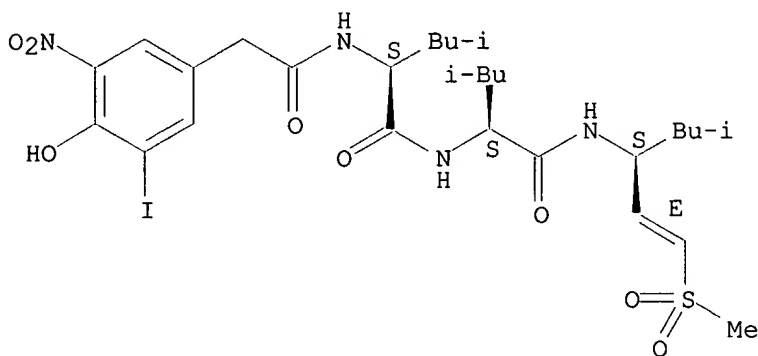
MF C28 H43 I N4 O8 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

Absolute stereochemistry.

Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

5 REFERENCES IN FILE CA (1967 TO DATE)

5 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:319354

REFERENCE 2: 135:193203

REFERENCE 3: 134:320576

REFERENCE 4: 134:278290

REFERENCE 5: 127:146407

L66 ANSWER 10 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 179324-69-7 REGISTRY

CN Boronic acid, [(1R)-3-methyl-1-[[[(2S)-1-oxo-3-phenyl-2-[(pyrazinylcarbonyl)amino]propyl]amino]butyl]- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Boronic acid, [3-methyl-1-[[1-oxo-3-phenyl-2-[(pyrazinylcarbonyl)amino]propyl]amino]butyl]-, [S-(R\*,S\*)]-

OTHER NAMES:

CN Bortezomib

CN LDP 341

CN MG 341

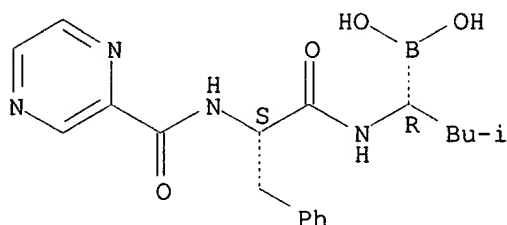
CN PS 341

CN PS 341 (pharmaceutical)

FS STEREOSEARCH

DR 197730-97-5  
 MF C19 H25 B N4 O4  
 SR CA  
 LC STN Files: BIOSIS, BIOTECHNO, CA, CAPLUS, DRUGNL, DRUGUPDATES, EMBASE,  
 PHAR, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

40 REFERENCES IN FILE CA (1967 TO DATE)  
 40 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 137:72751  
 REFERENCE 2: 137:41335  
 REFERENCE 3: 137:27901  
 REFERENCE 4: 137:15379  
 REFERENCE 5: 136:395418  
 REFERENCE 6: 136:319393  
 REFERENCE 7: 136:319354  
 REFERENCE 8: 136:319018  
 REFERENCE 9: 136:245552  
 REFERENCE 10: 136:240926

L66 ANSWER 11 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 158442-41-2 REGISTRY

CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-  
 N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX  
 NAME)

OTHER CA INDEX NAMES:

CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-  
 N-[1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester, (S)-

OTHER NAMES:

CN 1: PN: WO0002548 PAGE: 29 claimed sequence

CN PSI

CN PSI (proteasome inhibitor)

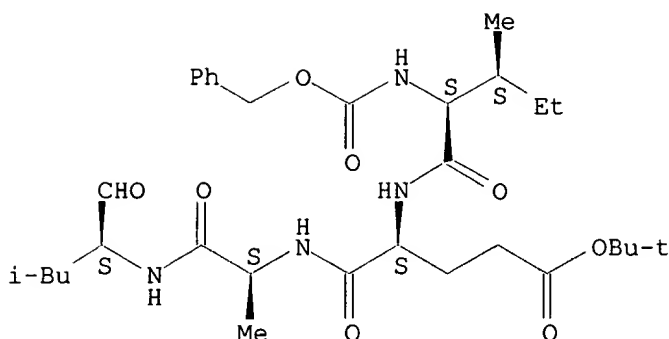
FS PROTEIN SEQUENCE; STEREOSEARCH

MF C32 H50 N4 O8

SR CA

LC STN Files: CA, CAPLUS, CHEMCATS, TOXCENTER, USPATFULL

Absolute stereochemistry.



28 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

28 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 137:57227  
 REFERENCE 2: 137:41777  
 REFERENCE 3: 136:319354  
 REFERENCE 4: 136:290941  
 REFERENCE 5: 136:177564  
 REFERENCE 6: 136:90902  
 REFERENCE 7: 135:316891  
 REFERENCE 8: 135:271620  
 REFERENCE 9: 135:236171  
 REFERENCE 10: 135:205090

L66 ANSWER 12 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 154333-21-8 REGISTRY

CN L-Cysteine, N-acetyl-, 3-hydroxy-2-(1-hydroxy-2-methylpropyl)-4-methyl-5-oxo-2-pyrrolidinecarboxylate (ester), [2R-[2.alpha.,2(S\*),3.beta.,4.beta.]]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN (6R,7S)-lactacystin

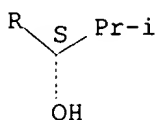
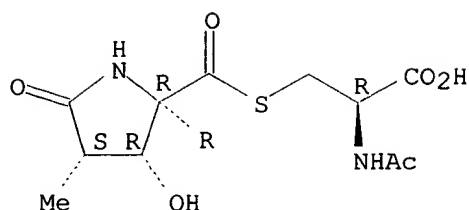
FS STEREOSEARCH

MF C15 H24 N2 O7 S

SR CA

LC STN Files: BIOTECHNO, CA, CAPLUS, EMBASE

Absolute stereochemistry. Rotation (+).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 121:26250

REFERENCE 2: 120:245711

L66 ANSWER 13 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 154006-00-5 REGISTRY

CN L-Cysteine, N-acetyl-, 3-hydroxy-2-(1-hydroxy-2-methylpropyl)-4-methyl-5-oxo-2-pyrrolidinecarboxylate (ester), [2R-[2.alpha.,2(S\*),3.beta.,4.alpha.]]- (9CI) (CA INDEX NAME)

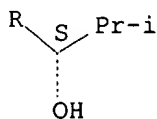
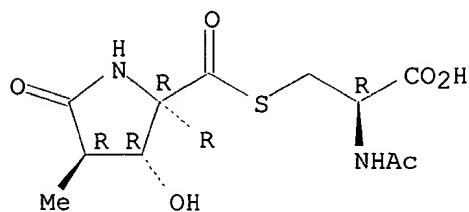
FS STEREOSEARCH

MF C15 H24 N2 O7 S

SR CA

LC STN Files: CA, CAPLUS

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

2 REFERENCES IN FILE CA (1967 TO DATE)  
2 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 121:26250

REFERENCE 2: 120:218453

L66 ANSWER 14 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN **140879-24-9** REGISTRY

CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 26 S Protease

CN Immunoproteasome

CN Large multicatalytic protease

CN Multicatalytic protease

CN Multicatalytic proteinase

CN Multicatalytic proteinase complex

CN Organelle, proteasome

CN Prosome

CN **Proteasome**

CN Tricorn protease

CN Tricorn proteinase

MF Unspecified

CI MAN

SR CA

LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, CA, CAPLUS, CEN, CIN, PIRA, PROMT, TOXCENTER, USPAT2, USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

3264 REFERENCES IN FILE CA (1967 TO DATE)

26 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3278 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 137:77649

REFERENCE 2: 137:77156

REFERENCE 3: 137:76832

REFERENCE 4: 137:76498

REFERENCE 5: 137:76300

REFERENCE 6: 137:74641

REFERENCE 7: 137:74352

REFERENCE 8: 137:73225

REFERENCE 9: 137:73223

REFERENCE 10: 137:72751

L66 ANSWER 15 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN **134381-21-8** REGISTRY

CN L-Threoninamide, N-acetyl-N-methyl-L-isoleucyl-L-isoleucyl-N-[(1S)-3-methyl-1-[[[(2R)-2-methyloxiranyl]carbonyl]butyl]- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN BU 4061T

CN Epoxomicin

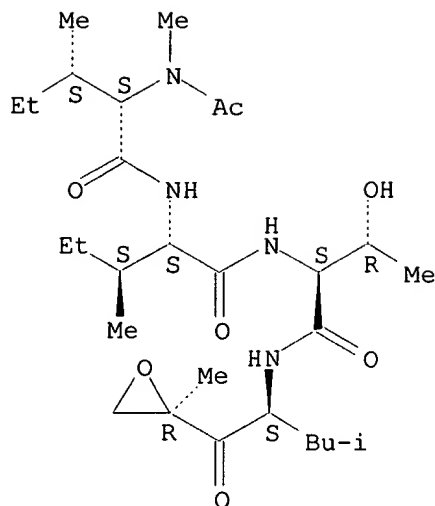
FS STEREOSEARCH

MF **C28 H50 N4 O7**

SR CA

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT, CAPLUS, CEN, CHEMCATS, CSCHEM, EMBASE, MEDLINE, SYNTHLINE, TOXCENTER, USPATFULL

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

15 REFERENCES IN FILE CA (1967 TO DATE)  
16 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 136:319354  
REFERENCE 2: 136:210571  
REFERENCE 3: 136:196058  
REFERENCE 4: 135:254547  
REFERENCE 5: 135:42638  
REFERENCE 6: 134:331618  
REFERENCE 7: 134:128358  
REFERENCE 8: 133:148873  
REFERENCE 9: 132:216387  
REFERENCE 10: 132:160826

L66 ANSWER 16 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 133343-34-7 REGISTRY

CN L-Cysteine, N-acetyl-, (2R,3S,4R)-3-hydroxy-2-[(1S)-1-hydroxy-2-methylpropyl]-4-methyl-5-oxo-2-pyrrolidinecarboxylate (ester) (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN L-Cysteine, N-acetyl-, 3-hydroxy-2-(1-hydroxy-2-methylpropyl)-4-methyl-5-oxo-2-pyrrolidinecarboxylate (ester), [2R-[2.alpha.,2(S\*),3.alpha.,4.alpha.]]-

OTHER NAMES:

CN (+)-Lactacystin

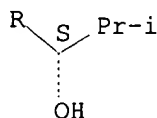
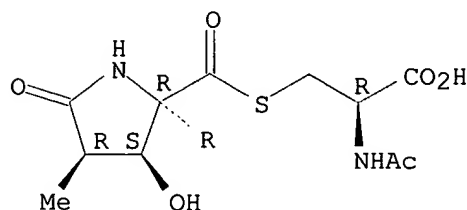
CN Lactacystin

FS STEREOSEARCH

MF C15 H24 N2 O7 S

CI COM  
 SR CA  
 LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CANCERLIT,  
 CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CSCHEM, EMBASE, MEDLINE,  
 PHAR, PROMT, SYNTHLINE, TOXCENTER, USPAT2, USPATFULL

Absolute stereochemistry. Rotation (+).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

186 REFERENCES IN FILE CA (1967 TO DATE)  
 14 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 187 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 137:3552  
 REFERENCE 2: 136:395463  
 REFERENCE 3: 136:363352  
 REFERENCE 4: 136:319393  
 REFERENCE 5: 136:319354  
 REFERENCE 6: 136:303940  
 REFERENCE 7: 136:226383  
 REFERENCE 8: 136:212412  
 REFERENCE 9: 136:210571  
 REFERENCE 10: 136:196263

L66 ANSWER 17 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 9004-07-3 REGISTRY

CN **Chymotrypsin (9CI)** (CA INDEX NAME)

OTHER NAMES:

CN .alpha.-Chymotrypsin  
 CN .alpha.-Chymotrypsin A  
 CN .alpha.1-Chymotrypsin  
 CN .gamma.-Chymotrypsin A  
 CN Alpha chymar  
 CN Alpha-chymar ophth

CN Avazyme  
CN Chymar  
CN Chymotest  
CN Chymotrypsin A  
CN Chymotrypsin A.alpha.  
CN Chymotrypsin B  
CN Chymotrypsin P  
CN E.C. 3.4.21.1  
CN E.C. 3.4.4.5  
CN E.C. 3.4.4.6  
CN Enzeon  
CN Quimar  
CN Quimotrase  
DR 8049-46-5, 9025-29-0, 9062-30-0, 9067-81-6  
MF Unspecified  
CI COM, MAN  
LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, CSNB, DDFU, DIOGENES, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, NAPRALERT, NIOSHTIC, PHARMASEARCH, PIRA, PROMT, RTECS\*, TOXCENTER, USAN, USPAT2, USPATFULL, VTB  
(\*File contains numerically searchable property data)  
Other Sources: EINECS\*\*, TSCA\*\*, WHO  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
10536 REFERENCES IN FILE CA (1967 TO DATE)  
657 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
10549 REFERENCES IN FILE CAPLUS (1967 TO DATE)

REFERENCE 1: 137:83635  
REFERENCE 2: 137:79394  
REFERENCE 3: 137:79212  
REFERENCE 4: 137:78787  
REFERENCE 5: 137:75558  
REFERENCE 6: 137:75409  
REFERENCE 7: 137:75219  
REFERENCE 8: 137:73248  
REFERENCE 9: 137:62641  
REFERENCE 10: 137:62258

L66 ANSWER 18 OF 18 REGISTRY COPYRIGHT 2002 ACS

RN 6493-05-6 REGISTRY

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Theobromine, 1-(5-oxohexyl)- (7CI, 8CI)

OTHER NAMES:

CN 1-(5-Oxohexyl)-3,7-dimethylxanthine

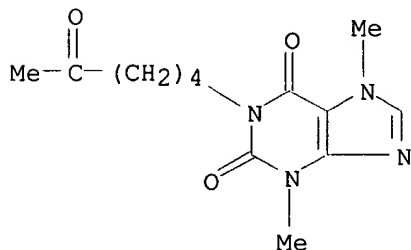
CN 1-(5-Oxohexyl)theobromine

CN 3,7-Dihydro-3,7-dimethyl-1-(5-oxohexyl)-1H-purine-2,6-dione

CN 3,7-Dimethyl-1-(5-oxohexyl)-1H,3H-purin-2,6-dione

CN 3,7-Dimethyl-1-(5-oxohexyl)xanthine

CN Agapurin Retard  
 CN BL 191  
 CN Dimethyloxohexylxanthine  
 CN Oxpentifylline  
 CN Pentoxifyllin  
 CN Pentoxifylline  
 CN Pentoxiphyllin  
 CN Pentoxiphylline  
 CN Pentoxyfilline  
 CN Pentoxyphyllin  
 CN PTX  
 CN Torental  
 CN Trental  
 FS 3D CONCORD  
 MF C13 H18 N4 O3  
 CI COM  
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*,  
 BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAOLD, CAPLUS,  
 CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU, DIOGENES,  
 DRUGNL, DRUGPAT, DRUGU, DRUGUPDATES, EMBASE, IPA, MEDLINE, MRCK\*,  
 NIOSHTIC, PHAR, PHARMASEARCH, PROMT, RTECS\*, SPECINFO, SYNTHLINE,  
 TOXCENTER, USAN, USPAT2, USPATFULL, VETU  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*, WHO  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1816 REFERENCES IN FILE CA (1967 TO DATE)  
 22 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1821 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
 2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

REFERENCE 1: 137:83755  
 REFERENCE 2: 137:83612  
 REFERENCE 3: 137:72854  
 REFERENCE 4: 137:57306  
 REFERENCE 5: 137:57274  
 REFERENCE 6: 137:57200  
 REFERENCE 7: 137:56985  
 REFERENCE 8: 137:41772  
 REFERENCE 9: 137:41462

REFERENCE 10: 137:41310

=> fil hcaplus

FILE 'HCAPLUS' ENTERED AT 15:30:40 ON 05 AUG 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 5 Aug 2002 VOL 137 ISS 6

FILE LAST UPDATED: 4 Aug 2002 (20020804/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> d all hitstr tot 163

L63 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 2002:483066 HCAPLUS

DN 137:41777

TI Inhibitors of NF- $\kappa$ B or proteasomal activity for stimulating hair growth

IN Mundy, Gregory R.; Garrett, I. Ross; Rossini, G.

PA Osteoscreen, Inc., USA

SO U.S., 9 pp., Cont.-in-part of U. S. Ser. No. 113,947.

CODEN: USXXAM

DT Patent

LA English

IC ICM A61K038-00

NCL 514012000

CC 1-12 (Pharmacology)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6410512	B1	20020625	US 1999-361775	19990727 <--
	US 2002103127	A1	20020801	US 2002-50425	20020115 <--
PRAI	US 1998-113947	A2	19980710	<--	
	US 1999-361775	A1	19990727		

AB Compds. that inhibit the activity of NF- $\kappa$ B or inhibit the activity of the proteasome or both promote hair growth and stimulate the prodn. of hair follicles and are thus useful in stimulating hair growth, including hair d., in subjects where this is desirable.

ST proteasome inhibitor hair growth stimulation; NF $\kappa$ B inhibitor hair growth stimulation

IT Human

(NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Leukemia inhibitory factor  
Platelet-derived growth factors  
Transforming growth factors  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth, and use with other agents)

IT Chemotherapy  
(alopecia from; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Temperature  
(cold, protection from; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Hair  
(follicle; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Alopecia  
(from chemotherapy; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Disease, animal  
(genetic; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Skin  
(growth or infiltration, agents promoting; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth, and use with other agents)

IT Hair preparations  
(growth stimulants; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Aging, animal  
(hair thinning from; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Alopecia  
(male pattern; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT Hair  
(thinning, aging-related; NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT **158442-41-2**  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

IT 9002-64-6, Parathyroid hormone 61912-98-9, Insulin-like growth factor 62031-54-3, Fibroblast growth factor 62229-50-9, Epidermal growth factor  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth, and use with other agents)

IT 438573-00-3 438573-01-4  
RL: PRP (Properties)  
(unclaimed sequence; inhibitors of NF-.kappa.B or proteasomal activity for stimulating hair growth)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; WO 9718239 1997 HCAPLUS  
(2) Anon; WO 9943346 1999 HCAPLUS  
(3) Fenteany; US 6147223 A 2000 HCAPLUS

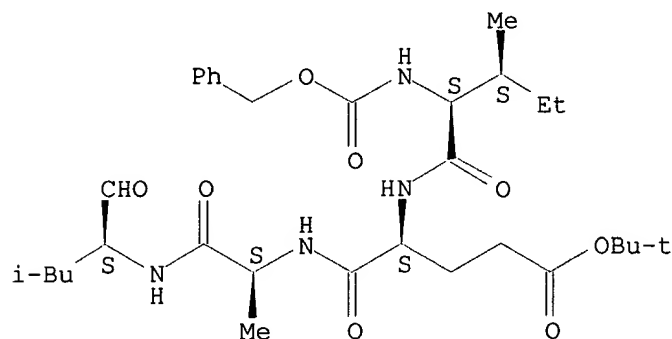
IT **158442-41-2**  
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(NF-.kappa.B inhibitor or proteasomal activity inhibitor for stimulating hair growth)

RN 158442-41-2 HCAPLUS

CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L63 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:703740 HCAPLUS

DN 135:251986

TI Methods for treating fibroproliferative diseases with antiproliferative or antifibrotic agents, especially antisense c-Jun oligonucleotides

IN Peterson, Theresa C.

PA Dalhousie University, Can.

SO U.S., 13 pp., Cont.-in-part of U.S. 6,025,151.

CODEN: USXXAM

DT Patent

LA English

IC ICM C12Q001-02

ICS C12Q001-00; C12Q001-50

NCL 435029000

CC 1-12 (Pharmacology)

Section cross-reference(s): 9, 63

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
	-----	----	-----	-----	-----	
PI	US 6294350	B1	20010925	US 1999-433621	19991102	<--
	US 5985592	A	19991116	US 1997-870096	19970605	<--
	US 6025151	A	20000215	US 1998-92317	19980605	<--
	WO 2001032156	A2	20010510	WO 2000-IB1731	20001102	
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG					
PRAI	US 1997-870096	A2	19970605	<--		
	US 1998-92317	A2	19980605	<--		
	US 1999-433621	A1	19991102			

AB In accordance with the present invention, fibroproliferative disease or condition characterized by such symptoms as increased levels of c-Jun homodimers, increased heterodimerization of c-Jun with another signaling peptide, increased levels of phosphorylated c-Jun, or increased presence

of Jun kinase are treated by administering to the subject an amt. of a compd. effective to ameliorate one or more of the symptoms of the disease or condition, for example, an antiproliferative or antifibrotic agent. Preferred compds. for administration according to the invention are antisense c-Jun oligonucleotides and compds. that block c-Jun phosphorylation, such as pentoxifylline, or a functional deriv. or metabolite thereof. Also provided by the present invention are in vitro tests for identifying whether a test compd. is useful for treatment of a subject afflicted with such a disease and kits useful for conducting such assays.

ST fibroproliferative disease treatment antiproliferative antifibrotic agent; antiproliferative antisense oligonucleotide fibroproliferative disease cJun

IT Peptides, biological studies

RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(ATF2; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Angiotensin receptors

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(AT1, inhibitors; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Hepatitis

(C; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Transcription factors

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(CREB (cAMP-responsive element-binding); antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Eye, disease

Graves' disease

(Graves' ophthalmopathy; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Sarcoma

(Kaposi's; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Neoplasm

(Li-Fraumeni syndrome; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Transcription factors

RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)

(NF- $\kappa$ B (nuclear factor  $\kappa$ B); antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Peptides, biological studies

RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(Nrf1; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

IT Eye

(Tenon's capsule, fibroproliferation; antiproliferative or antifibrotic

- agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT **Leukemia**  
(acute myelogenous; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Abdomen  
(adhesions; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Fibrosis  
(antifibrotics; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Alzheimer's disease  
Animal tissue culture  
Anti-Alzheimer's agents  
**Antitumor agents**  
Drug screening  
Epithelium  
Fibroblast  
Hematopoietic precursor cell  
Keloid  
Kidney, disease  
Leprosy  
Mesenchyme  
Multiple sclerosis  
**Myelodysplastic syndromes**  
**Myeloproliferative disorders**  
**Neoplasm**  
Neuroglia  
Phosphorylation, biological  
Picrorhiza kurroa  
Signal transduction, biological  
Silicosis  
Silybum marianum  
Test kits  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Platelet-derived growth factors  
**Tumor necrosis factors**  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Antisense oligonucleotides  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Decorins  
Phosphatidylcholines, biological studies  
Tocopherols  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Bronchi  
(bronchiolitis, obliterative; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

- IT Signal peptides  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(c-Jun heterodimerization with; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Transcription factors  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); PREP (Preparation); PROC (Process)  
(c-jun; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Malaria  
(cerebral; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Intestine, disease  
(colitis, collagenous; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Cardiovascular system  
(disease; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drugs  
Ergot (Claviceps)  
(drug-induced ergotism; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Reproductive tract  
(female, **cancer**; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Intestine  
Lung  
Skin  
(fibroblasts of; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Radiation  
(fibrosis from; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Heart, disease  
Kidney, disease  
Liver, disease  
Lung, disease  
Peritoneum  
(fibrosis; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Gene, animal  
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PREP (Preparation); PROC (Process)  
(for c-Jun; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Neuroglia  
(glioblastoma, sporadic; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Neuroglia  
(glioblastoma; antiproliferative or antifibrotic agents, esp. antisense

- IT c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Kidney, disease
  - (glomerulonephritis; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Neutrophil
  - (infiltration; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Intestine, disease
  - (inflammatory; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Cytokines
  - RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)
  - (inflammatory; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems
  - (inhalants; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems
  - (injections, i.m.; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems
  - (injections, i.v.; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Lung, disease
  - (interstitial; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Brain, disease
  - (malaria; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT **Antitumor agents**
  - (mammary gland; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Kidney
  - (mesangium; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT **Leukemia**
  - (myelogenous; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Liver
  - (myofibroblasts of; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Mammary gland
  - (**neoplasm**, inhibitors; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Mammary gland
  - (**neoplasm**; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Nerve, **neoplasm**
  - (neuroblastoma; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems
  - (oral; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

- IT Proteins, specific or class  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)  
(p65, NF- $\kappa$ B p65; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Phosphatidylcholines, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(polyenyl-; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Proliferation inhibition  
(proliferation inhibitors; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Disease, animal  
(proliferative; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems  
(rectal; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Connective tissue  
(scleroderma; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Shock (circulatory collapse)  
(septic; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Blood vessel  
(smooth muscle; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Muscle  
(smooth; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT **Carcinoma**  
(squamous cell, differentiation disorder; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Cell differentiation  
(squamous cell, disorder; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems  
(sustained-release; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Lupus erythematosus  
(systemic, nephritis assocd. with; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems  
(topical; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Drug delivery systems  
(transdermal; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Interferons  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (.alpha.; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT Transforming growth factors  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.beta.-, RII/FC; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 155215-87-5, Jun kinase  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 217308-10-6, DNA, d(G-C-A-G-T-C-A-T-A-G-A-A-C-A-G-T-C-C-G-T-C-A-C-T-T-C-A-C-G-T)  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 50-23-7, Hydrocortisone 54-85-3, Isoniazid 54-85-3D, Isoniazid, conjugated 59-67-6, Niacin, biological studies 64-86-8, Colchicine 107-35-7, Taurine 518-34-3, Tetrandrine 1028-33-7, Pentifylline 1405-86-3, Glycyrrhizin **6493-05-6**, Pentoxifylline **6493-05-6D**, Pentoxifylline, derivs. and metabolites 6493-06-7, 1H-Purine-2,6-dione, 3,7-dihydro-1-(5-hydroxyhexyl)-3,7-dimethyl-10102-43-9, Nitric oxide, biological studies 53179-13-8, Pirfenidone 55242-55-2, Propentofylline 55837-20-2, Halofuginone 62571-86-2, Captopril 75847-73-3, Enalapril 80288-49-9, Furafylline 83150-76-9, Octreotide 85721-33-1, Ciprofloxacin 91161-71-6, Terbinafine 114798-26-4, Losartan 119290-87-8, Acanthoic acid 120210-48-2, Tenidap  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 50-88-4, Tritiated thymidine, biological studies 1148-63-6, Thymidine-.alpha.-t 42459-79-0, Uridine, 5-bromo-, labeled with tritium  
RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 330196-64-0, Cytochrome p 450 1A2  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(inhibitors; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)
- IT 9015-82-1, Angiotensin converting enzyme  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; DE 3604149 A1 1987 HCAPLUS
- (2) Anon; WO 8700523 A2 1987 HCAPLUS
- (3) Anon; WO 9219772 A1 1992 HCAPLUS
- (4) Anon; EP 0544391 A1 1993 HCAPLUS
- (5) Anon; WO 9502051 A2 1995 HCAPLUS

- (6) Anon; WO 9526727 A1 1995 HCAPLUS
- (7) Bamberger; Proc Natl Acad Sci USA 1996, V93, P6169 HCAPLUS
- (8) Bessler; J Leukocyte Biol 1986, V40, P747 HCAPLUS
- (9) Bianco; US 5585380 1996 HCAPLUS
- (10) Bonsen; US 4265874 1981 HCAPLUS
- (11) Peterson; US 5985592 1999 HCAPLUS
- (12) Peterson; US 6025154 2000 HCAPLUS
- (13) Theeuwes; US 4160452 1979 HCAPLUS
- (14) Theeuwes; US 4256108 1981

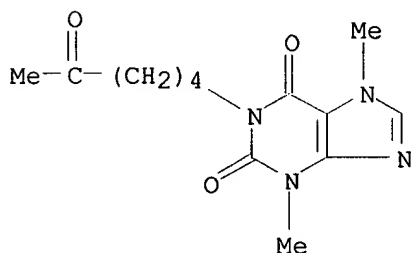
IT 6493-05-6, Pentoxifylline 6493-05-6D, Pentoxifylline, derivs. and metabolites

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antiproliferative or antifibrotic agents, esp. antisense c-Jun oligonucleotides, for treating fibroproliferative diseases)

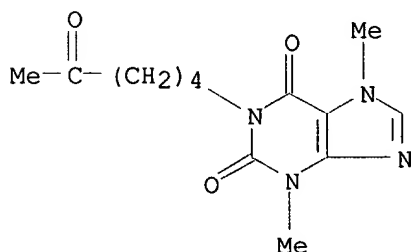
RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 2001:338333 HCAPLUS

DN 134:357558

TI Methods for treating fibroproliferative diseases

IN Peterson, Theresa C.

PA Dalhousie University, Can.

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-00

ICS A61K031-522; A61K045-00; A61K045-06; A61K048-00; C12Q001-48; G01N033-58; A61P019-04; A61P035-00; A61P037-00; A61P025-28; A61P043-00; A61P033-06; A61P031-12; A61P039-00; A61P035-02;

A61P001-00; A61P011-00; A61P013-12; A61P009-00

CC 63-6 (Pharmaceuticals)

Section cross-reference(s): 1, 2, 8, 15

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001032156	A2	20010510	WO 2000-IB1731	20001102
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
	US 6294350	B1	20010925	US 1999-433621	19991102 <--
PRAI	US 1999-433621	A1	19991102		
	US 1997-870096	A2	19970605	<--	
	US 1998-92317	A2	19980605	<--	
AB	In accordance with the present invention, fibroproliferative disease or condition characterized by such symptoms as increased levels of c-Jun homodimers, increased heterodimerization of c-Jun with another signaling peptide, increased levels of phosphorylated c-Jun, or increased presence of Jun kinase are treated by administering to the subject an amt. of a compd. effective to ameliorate one or more of the symptoms of the disease or condition, for example, an antiproliferative or antifibrotic agent. Preferred compds. for administration according to the invention are antisense c-Jun oligonucleotides and compds. that block c-Jun phosphorylation, such as pentoxifylline, or a functional deriv. or metabolite thereof. Also provided by the present invention are in vitro tests for identifying whether a test compd. is useful for treatment of a subject afflicted with such a disease and kits useful for conducting such assays.				
ST	antiproliferative antisense oligonucleotide fibroproliferative disease cJun				
IT	Peptides, biological studies RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (ATF2; antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Angiotensin receptors RL: BSU (Biological study, unclassified); BIOL (Biological study) (AT1, inhibitors; antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Hepatitis (C; antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Transcription factors RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (CREB (cAMP-responsive element-binding); antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Eye, disease Graves' disease (Graves' ophthalmopathy; antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Sarcoma (Kaposi's; antisense oligonucleotide preps. for treating fibroproliferative diseases)				
IT	Neoplasm				

- (Li-Fraumeni syndrome; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Transcription factors  
 RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence) (NF-.kappa.B (nuclear factor .kappa.B); antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Peptides, biological studies  
 RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process) (Nrfl; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Eye  
 (Tenon's capsule, fibroproliferation; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT **Leukemia**  
 (acute myelogenous; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Abdomen  
 (adhesions; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Fibrosis  
 (antifibrotics; antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Alzheimer's disease  
 Animal tissue culture  
 Anti-Alzheimer's agents  
**Antitumor** agents  
 Epithelium  
 Fibroblast  
 Hematopoietic precursor cell  
 Keloid  
 Kidney, disease  
 Leprosy  
 Mesenchyme  
 Multiple sclerosis  
**Myelodysplastic syndromes**  
**Myeloproliferative disorders**  
**Neoplasm**  
 Neuroglia  
 Phosphorylation, biological  
 Picrorhiza kurroa  
 Signal transduction, biological  
 Silicosis  
 Silybum marianum  
 (antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Platelet-derived growth factors  
**Tumor** necrosis factors  
 RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence) (antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Antisense oligonucleotides  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (antisense oligonucleotide prepsns. for treating fibroproliferative diseases)
- IT Decorins

Phosphatidylcholines, biological studies

Tocopherols

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Bronchi

(bronchiolitis, obliterative; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Transcription factors

RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence) (c-jun; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Malaria

(cerebral; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Intestine, disease

(colitis, collagenous; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Cardiovascular system

(disease; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Reproductive tract

(female, **cancer**; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Intestine

Lung

Skin

(fibroblasts of; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Radiation

(fibrosis from; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Heart, disease

Kidney, disease

Lung, disease

Peritoneum

(fibrosis; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Neuroglia

(glioblastoma, sporadic; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Neuroglia

(glioblastoma; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Kidney, disease

(glomerulonephritis; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Neutrophil

(infiltration; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Intestine, disease

(inflammatory; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT Cytokines

RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence) (inflammatory; antisense oligonucleotide preps. for treating fibroproliferative diseases)

- IT Drug delivery systems  
(inhalants; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(injections, i.m.; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(injections, i.v.; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Lung, disease  
(interstitial; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Brain, disease  
(malaria; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT **Antitumor** agents  
(mammary gland; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Kidney  
(mesangium; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT **Leukemia**  
(myelogenous; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Liver  
(myofibroblasts of; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Mammary gland  
(**neoplasm**, inhibitors; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Mammary gland  
(**neoplasm**; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Nerve, **neoplasm**  
(neuroblastoma; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(oral; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Proteins, specific or class  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)  
(p65; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Phosphatidylcholines, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(polyenyl-; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Proliferation inhibition  
(proliferation inhibitors; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Disease, animal  
(proliferative; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(rectal; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Connective tissue  
(scleroderma; antisense oligonucleotide preps. for treating fibroproliferative diseases)

- IT Shock (circulatory collapse)  
(septic; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Blood vessel  
(smooth muscle; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Muscle  
(smooth; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT **Carcinoma**  
(squamous cell, differentiation disorder; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Cell differentiation  
(squamous cell, disorder; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(sustained-release; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Lupus erythematosus  
(systemic, nephritis; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(topical; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Drug delivery systems  
(transdermal; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Interferons  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.alpha.; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT Transforming growth factors  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.beta.-, RII/FC; antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT 155215-87-5, Jun kinase  
RL: ADV (Adverse effect, including toxicity); BOC (Biological occurrence); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence)  
(antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT 217308-10-6  
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
(antisense oligonucleotide preps. for treating fibroproliferative diseases)
- IT 50-23-7, Hydrocortisone 54-85-3, Isoniazid 59-67-6, Niacin, biological studies 64-86-8, Colchicine 107-35-7, Taurine 518-34-3, Tetrandrine 1028-33-7, Pentifylline 1405-86-3, Glycyrrhizin **6493-05-6**, Pentoxifylline 6493-06-7 10102-43-9, Nitric oxide, biological studies 53179-13-8, Pirfenidone 55242-55-2, Propentofylline 55837-20-2, Halofuginone 62571-86-2, Captopril 75847-73-3, Enalapril 80288-49-9, Furafylline 83150-76-9, Octreotide 85721-33-1, Ciprofloxacin 91161-71-6, Terbinafine 114798-26-4, Losartan 119290-87-8, Acanthoic acid 120210-48-2, Tenidap  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES

(Uses)  
 (antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT 50-88-4, Tritiated thymidine, biological studies 42459-79-0  
 RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (antisense oligonucleotide preps. for treating fibroproliferative diseases)

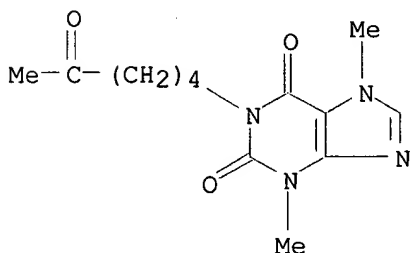
IT 330196-64-0, Cytochrome p 450 1A2  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (inhibitors; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT 9015-82-1, Angiotensin converting enzyme  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; antisense oligonucleotide preps. for treating fibroproliferative diseases)

IT 6493-05-6, Pentoxifylline  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (antisense oligonucleotide preps. for treating fibroproliferative diseases)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 2000:401587 HCAPLUS  
 DN 133:26853  
 TI Therapeutic uses of protease inhibitors to modulate cellular pathways and immunity  
 IN Weichold, Frank F.; Bryant, Joseph L.; Gallo, Robert C.  
 PA University of Maryland Biotechnology Institute, USA  
 SO PCT Int. Appl., 118 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A01N037-18  
 ICS A01N043-04; A61K031-70; A61K038-00; A61K038-48  
 CC 1-7 (Pharmacology)  
 Section cross-reference(s): 15  
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000033654	A1	20000615	WO 1999-US28548	19991203 <--
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,				

MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,  
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ,  
BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,  
DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,  
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRAI US 1998-110893P P 19981204 <--

AB The present invention is directed to the use of protease inhibitors, esp. HIV protease, proteasome, serine protease and cysteine protease inhibitors to modulate cellular pathways such as those involved in cell activation, metab., proliferation, differentiation, maturation, cycle, and death. This is useful esp. in the context of **cancer** treatment, allergy, vaccines, autoimmune disorder, inflammation, transplant, burn, trauma, acute ischemia, stroke, aging, wasting syndrome, and infectious conditions. For example, Ritonavir, an HIV protease inhibitor, induced a dose-dependent and reversible inhibition of proliferation of primary endothelial cells (HUVEC) and Kaposi sarcoma cell lines (KS-Y1 and KSIMM). Drug effects on induced apoptosis were dependent on the stage of activation and suggested a relation to cell cycle. Also, susceptibility to activation-induced cell death and apoptosis of T-cells was decreased by Ritonavir by a mechanism that included, but was not limited to, effects on caspase-3 and CD95-dependent apoptosis pathways. The prodn. of apoptosis mediators that are ligands for "death receptors", such as CD95-L and TNF, were inhibited as well.

ST protease inhibitor immunomodulator **antitumor** antiinfective;

IT antiinflammatory antiischemic protease inhibitor immunomodulator

IT Selectins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(E-; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Antigens

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(HIV gp140 protein; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Cell adhesion molecules

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(ICAM-1 (intercellular adhesion mol. 1); therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT **Antitumor** agents

(Kaposi's sarcoma; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Transcription factors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(NF-.kappa.B (nuclear factor .kappa.B); therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Transcription factors

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(NFAT-1 (nuclear factor, activated T-cell, 1); therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Cell adhesion molecules

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(VCAM-1; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Immunostimulants

(adjuvants; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Transplant and Transplantation

Transplant and Transplantation

(bone marrow; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Immunity  
(disorder; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Blood vessel  
(endothelium; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Envelope proteins  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(gpl40env, antigens; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT T cell (lymphocyte)  
(helper cell/inducer, TH1; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Blood cell  
(homeostasis, inhibition of; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Cytokines  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(inflammatory, inhibition of; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT **Antitumor** agents  
(leukemia; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Angiogenesis  
(neovascularization; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Antibodies  
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)  
(neutralizing; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Brain, disease  
(stroke; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Drug interactions  
(synergistic; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Aging, animal

Allergy inhibitors

Anti-AIDS agents

Anti-infective agents

Anti-inflammatory agents

Anti-ischemic agents

Antibacterial agents

**Antitumor** agents

Antiviral agents

Apoptosis

Autoimmune disease

Burn

Cell activation

Cell adhesion

Cell cycle

Cell death

Cell differentiation

Cell proliferation

Fungicides

Gene therapy

Hematopoiesis

Hepatitis virus

Human herpesvirus

Human immunodeficiency virus 1  
 Human immunodeficiency virus 2  
 Immunomodulators  
 Immunotherapy  
 Influenza virus  
 Malnutrition  
 Monocyte  
 Papillomavirus  
 Parasiticides  
 Radiation  
 Radiotherapy  
 Retroviridae  
 Shock (circulatory collapse)  
 Transplant and Transplantation  
 Transplant rejection  
 Vaccines

(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT **Tumor** necrosis factors

RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Chemokines

Fas antigen  
 Interleukin 10  
 Interleukin 12  
 Interleukin 1.beta.  
 Interleukin 4  
 Interleukin 5  
 Interleukin 6  
 Interleukin 8

Macrophage inflammatory protein 1.alpha.

Monocyte chemoattractant protein-1

RANTES (chemokine)

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Cytokines

RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)

(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT **Bone marrow**

**Bone marrow**

Hematopoietic precursor cell

(transplant; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Injury

(trauma; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Disease, animal

(wasting; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Interferons

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(.alpha.; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Integrins

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(.alpha.v.beta.3; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Interferons  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(.beta.1; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT Interferons  
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(.gamma.; therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT 144114-21-6, Retropepsin  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(therapeutic uses of inhibitors of HIV and other proteases to modulate cellular pathways and immunity)

IT 50-18-0, Cytosin  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT 127779-20-8, Saquinavir 133343-34-7, Lactacystin 133407-82-6, MG 132 150378-17-9, Indinavir 155213-67-5, Ritonavir 159989-64-7, Nelfinavir  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

IT 9001-92-7, Protease 37259-58-8, Serine protease 37353-41-6, Cysteine protease 122191-40-6, Caspase 1 140879-24-9, Proteasome 169592-56-7, Caspase 3  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

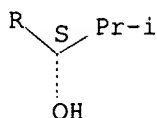
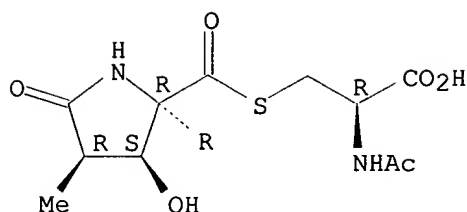
(1) Hornback; US 5624934 A 1997 HCAPLUS

IT 133343-34-7, Lactacystin  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)

RN 133343-34-7 HCAPLUS

CN L-Cysteine, N-acetyl-, (2R,3S,4R)-3-hydroxy-2-[(1S)-1-hydroxy-2-methylpropyl]-4-methyl-5-oxo-2-pyrrolidinecarboxylate (ester) (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



IT 140879-24-9, Proteasome  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (therapeutic uses of protease inhibitors to modulate cellular pathways and immunity)  
 RN 140879-24-9 HCAPLUS  
 CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L63 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 2000:113042 HCAPLUS  
 DN 132:161268  
 TI Therapeutic uses for compounds which reduce c-jun gene expression  
 IN Peterson, Theresa C.  
 PA Dalhousie University, Can.  
 SO U.S., 20 pp., Cont.-in-part of U.S. Ser. No. 870,096.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 IC ICM C12Q001-02  
 NCL 435029000  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6025151	A	20000215	US 1998-92317	19980605 <--
	US 5985592	A	19991116	US 1997-870096	19970605 <--
	CA 2262463	AA	19981210	CA 1998-2262463	19980605 <--
	US 6294350	B1	20010925	US 1999-433621	19991102 <--
PRAI	US 1997-870096	A2	19970605 <--		
	US 1998-92317	A2	19980605 <--		

AB In accordance with the invention, it has been discovered that monocyte conditioned medium (MCM) obtained from patients with liver disease stimulates the proliferation of fibroblasts. Platelet derived growth factor (PDGF) has also been found to stimulate fibroproliferation of fibroblasts, and to be at least partially responsible for the fibroproliferative effect of the MCM. Further, in accordance with the invention, the effect of MCM and PDGF on the expression of c-fos and c-jun has been investigated, because c-fos and c-jun form AP-1 complexes which can stimulate genes involved in proliferation. It has recently been reported that pentoxifylline inhibits platelet derived growth factor-stimulated proliferation. Studies were conducted to det. whether pentoxifylline altered the expression of c-fos and c-jun. While PDGF was found to induce the expression of both c-fos and c-jun, pentoxifylline was

found to effectively reduce the effect of PDGF-induced c-jun gene expression, without altering c-fos gene expression. These results suggest that pentoxifylline inhibits PDGF-stimulated proliferation by decreasing c-jun expression. These results further suggest a variety of diseases and/or conditions which may also be successfully treated with compds., such as pentoxifylline, which reduce the transcription of c-jun gene.

ST jun gene expression inhibition therapeutic; pentoxifylline jun gene expression inhibition therapeutic

IT Platelet-derived growth factors  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (AA; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Platelet-derived growth factors  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (AB; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Platelet-derived growth factors  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (BB; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Eye, disease  
 Eye, disease  
 Graves' disease  
 Graves' disease  
 (Graves' ophthalmopathy; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Antitumor agents**  
 (Kaposi's sarcoma; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Sarcoma  
 (Kaposi's, cell derived from; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Neoplasm**  
 (Li-Fraumeni syndrome, glioblastoma in; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Transcription factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (NF-.kappa.B (nuclear factor .kappa.B); therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Antitumor agents**  
 (acute myelogenous leukemia; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Gene, animal  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (c-fos; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Gene, animal  
 Transcription factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (c-jun; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Epithelium  
 Mesenchyme  
 (cell; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Drugs  
 Ergot (Claviceps)  
 (drug-induced ergotism; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Antitumor agents**

(female reproductive tract; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Reproductive tract  
 Reproductive tract  
 (female, **neoplasm**, inhibitors; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Intestine  
 (fibroblast and smooth muscle cell; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Skin  
 (fibroblast; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Heart, disease  
 Liver, disease  
 Lung, disease  
 (fibrosis; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Neuroglia  
 Neuroglia  
 (glioblastoma, inhibitors; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Antitumor** agents  
 (glioblastoma; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Kidney, disease  
 (glomerulonephritis; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Neutrophil  
 (infiltration; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Intestine, disease  
 (inflammatory; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Drug delivery systems  
 (inhalants; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Drug delivery systems  
 (injections, i.m.; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Drug delivery systems  
 (injections, i.v.; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Lung, disease  
 (interstitial; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Kidney  
 (mesangium, cell; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Monocyte  
 (monocyte conditioned medium; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT **Antitumor** agents  
 (myelogenous leukemia; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Fibroblast  
 (myofibroblast, liver; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Liver  
 (myofibroblast; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT Kidney, disease  
 (nephritis, systemic lupus-assocd.; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

- IT Cell migration  
(neutrophil infiltration; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug delivery systems  
(oral; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Proteins, specific or class  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(p65, NF-.kappa.B p65; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Peritoneum  
(peritoneal fibrosis; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Lung  
(pulmonary fibroblast; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug delivery systems  
(rectal; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Wound  
(scar; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Connective tissue  
(scleroderma; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Blood vessel  
(smooth muscle, cell; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Muscle  
(smooth, cell; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug delivery systems  
(sustained-release; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug interactions  
(synergistic; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Lupus erythematosus  
(systemic, nephritis assocd. with; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Anti-Alzheimer's agents
- Anti-inflammatory agents
- Antitumor agents**
- Cardiovascular agents
- Cell proliferation
- Fibroblast
- Hematopoietic precursor cell
- Kidney, disease
- Leprosy
- Myelodysplastic syndromes**
- Myeloproliferative disorders**
- Neuroglia  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Antisense oligonucleotides  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Cytokines  
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological

- study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Platelet-derived growth factors  
RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Collagens, biological studies  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Interleukin 1  
Interleukin 12  
Interleukin 4  
**Tumor** necrosis factors  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug delivery systems  
(topical; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Drug delivery systems  
(transdermal; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Organ, animal  
(transformed cell from; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Biological transport  
(uptake; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Transforming growth factors  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.alpha.-; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT Transforming growth factors  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.beta.-; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT 2610-11-9  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(Sirius red; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT 9031-44-1, Kinase 9035-51-2, Cytochrome P 450, biological studies 142008-29-5  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT 258852-18-5  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)
- IT **6493-05-6**, Pentoxifylline **6493-05-6D**, Pentoxifylline, derivs. and metabolites 6493-06-7, 1-(5-Hydroxyhexyl)-3,7-dimethylxanthine 55242-55-2, Propentofylline 84477-87-2, H7  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT 141436-78-4, Protein kinase C 155215-87-5  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

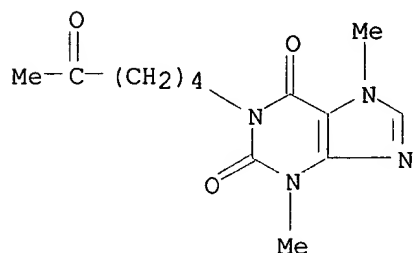
IT 9061-61-4, Nerve growth factor 12777-77-4, Fast green 62229-50-9, Epidermal growth factor 67763-96-6, Insulin-like growth factor 1 67763-97-7, Insulin-like growth factor 2 106096-92-8, Acidic fibroblast growth factor 106096-93-9, Basic fibroblast growth factor  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic uses for compds. which reduce c-jun gene expression, and assocd. methods)

IT 259084-21-4, 1: PN: US6025151 SEQID: 1 unclaimed DNA 259084-22-5, 2: PN: US6025151 SEQID: 2 unclaimed DNA  
RL: PRP (Properties)  
(unclaimed nucleotide sequence; therapeutic uses for compds. which reduce c-jun gene expression)

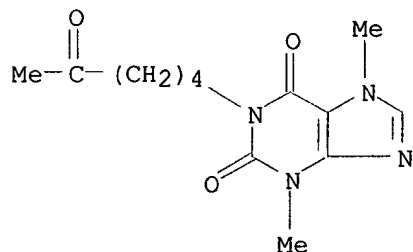
RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Bamberger; Proc Natl Acad Sci USA 1996, V93, P6169 HCAPLUS
- (2) Bessler; J Leukocyte Biol 1986, V40, P747 HCAPLUS
- (3) Bogoyevitch; J Biol Chem 1995, V270(50), P29710 HCAPLUS
- (4) Bonsen; US 4265874 1981 HCAPLUS
- (5) Buchdunger; Cancer Res 1996, V56, P100 HCAPLUS
- (6) Burgering; The EMBO Journal 1993, V12(11), P4211 HCAPLUS
- (7) Cimminiello; Angiology 1994, V45(4), P289 MEDLINE
- (8) Coso; J Biol Chem 1995, V270(10), P5620 HCAPLUS
- (9) Crespo; J Biol Chem 1994, V269(33), P21103 HCAPLUS
- (10) Davis; R J J Biol Chem 1993, V268(20), P14553 HCAPLUS
- (11) Dohlman; Immunol 1984, V52, P577 HCAPLUS
- (12) Gesualdo; Lab Invest 1991, V65(2), P160 HCAPLUS
- (13) Herschman, H; Ann Rev of Biochem 1991, V60, P281 HCAPLUS
- (14) Hunter; Cell 1992, V70, P375 HCAPLUS
- (15) Imai; Acta Endocrinologica 1992, V126, P541 HCAPLUS
- (16) Kuratsu; J Neurosurg 1990, V73, P436 HCAPLUS
- (17) Leon; J Histochem and Cytochem 1985, V33(8), P737
- (18) Lo; J Biol Chem 1996, V271(26), P15703 HCAPLUS
- (19) Luke; J Chromatogr 1986, V374(1), P191 HCAPLUS
- (20) Marra; FEBS Lett 1995, V376, P141 HCAPLUS
- (21) McCormick, F; Nature 1993, V363, P15 MEDLINE
- (22) Meskini; Biochem Pharmacol 1994, V47(5), P781 HCAPLUS
- (23) Nakamura; Clin Immunol Immunopathol 1992, V63(2), P173 HCAPLUS
- (24) Palech, S; Curr Biol 1993, V3(8), P513
- (25) Pesonen, E; Eur Heart J 1994, V15(Suppl X), P57
- (26) Peterson; Biochem Pharmacol 1992, V43(5), P1163 HCAPLUS
- (27) Peterson; Can J Gastroenterol 1996, V10, PS76
- (28) Peterson; Hepatol 1992, V15(2), P191 MEDLINE
- (29) Peterson; Immunopharmacol 1994, V28, P259 HCAPLUS
- (30) Peterson; Immunopharmacol 1996, V31, P183 HCAPLUS
- (31) Peterson, T; Biochem Pharmacol 1996, V52, P597 HCAPLUS
- (32) Peterson, T; Hepatol 1993, V17(3), P486 HCAPLUS
- (33) Pietrogrande; Angiology 1995, V46(7), P633 MEDLINE
- (34) Rosenwald; Cell Prolif 1995, V28, P631 HCAPLUS
- (35) Schafer; Biochem Biophys Res Commun 1996, V221, P111 MEDLINE
- (36) Schlesinger, J; Trends Biochem Sci 1993, V18, P273
- (37) Shaw; Am Rev Respir Dis 1991, V143, P167 MEDLINE
- (38) Terano; Lipids 1996, V31, PS301 HCAPLUS
- (39) Theeuwes; US 4160452 1979 HCAPLUS
- (40) Theeuwes; US 4256108 1981
- (41) Uebelhoer; Chest 1995, V107, P701 MEDLINE
- (42) Wu; Science 1993, V262, P1065 HCAPLUS

(43) Xie; J Biol Chem 1995, V270, P27622 HCAPLUS  
 (44) Yoshida; Molecular and Cellular Biology 1997, V17(7), P4015 HCAPLUS  
 (45) Zar, J; Biostatistical methods 1974  
 IT 6493-05-6, Pentoxifylline 6493-05-6D, Pentoxifylline,  
 derivs. and metabolites  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (therapeutic uses for compds. which reduce c-jun gene expression, and  
 assocd. methods)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA  
 INDEX NAME)



RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA  
 INDEX NAME)



L63 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 2000:53374 HCAPLUS  
 DN 132:102860  
 TI Inhibitors of proteasomal activity for stimulating **bone** and hair  
 growth  
 IN Mundy, Gregory R.; Garrett, I. Ross; Rossini,  
 G.  
 PA Osteoscreen, USA  
 SO PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K031-00  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 63

FAN.CNT 2

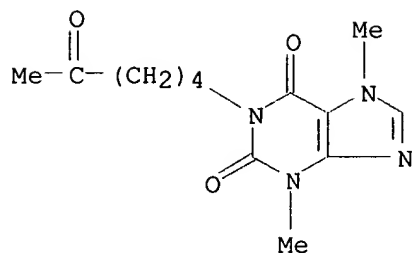
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000002548	A2	20000120	WO 1999-US15533	19990709 <--
	W: AL, AM, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, HU, IL, IN,				

IS, JP, KP, KR, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ,  
 PL, RO, SD, SG, SI, SK, TR, TT, US, UZ, VN, AM, AZ, BY, KG, KZ,  
 MD, RU, TJ, TM  
 RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,  
 ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
 CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG  
 AU 9963109 A1 20000201 AU 1999-63109 19990709 <--  
 EP 1096924 A1 20010509 EP 1999-933827 19990709 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI  
 PRAI US 1998-113947 A1 19980710 <--  
 WO 1999-US15533 W 19990709  
 AB Compds. that inhibit the activity of NF-.kappa.B or inhibit the activity  
 of the proteasome or both promote **bone** formation and hair growth  
 and are thus useful in treating **osteoporosis, bone**  
**fracture** or deficiency, primary or secondary  
**hyperparathyroidism, periodontal disease** or defect,  
**metastatic bone disease, osteolytic**  
**bone disease, post-plastic**  
**surgery, post-prosthetic joint surgery**  
 , and post-dental implantation. They also stimulate the prodn. of hair  
 follicles and are thus useful in stimulating hair growth, including hair  
 d., in subject where this is desirable.  
 ST hair **bone** growth stimulation NFkappaB inhibitor; proteasome  
 inhibitor hair **bone** growth stimulation  
 IT Transcription factors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (NF-.kappa.B (nuclear factor .kappa.B); NF-.kappa.B inhibitors and  
 inhibitors of proteasomal activity for stimulating **bone** and  
 hair growth)  
 IT **Bone formation**  
 Drug delivery systems  
 Drug screening  
 (NF-.kappa.B inhibitors and inhibitors of proteasomal activity for  
 stimulating **bone** and hair growth)  
 IT **Bone morphogenetic proteins**  
 Estrogens  
 Growth factors, animal  
 Hormones, animal, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)  
 (NF-.kappa.B inhibitors and inhibitors of proteasomal activity for  
 stimulating **bone** and hair growth, and use with other agents)  
 IT **Antitumor agents**  
 (**bone**, metastasis; NF-.kappa.B inhibitors and inhibitors of  
 proteasomal activity for stimulating **bone** and hair growth)  
 IT **Skull**  
 (calvarium, calvarial **bone** growth assay; NF-.kappa.B  
 inhibitors and inhibitors of proteasomal activity for stimulating  
**bone** and hair growth)  
 IT **Cartilage**  
 (**cartilage**-derived morphogenetic proteins; NF-.kappa.B  
 inhibitors and inhibitors of proteasomal activity for stimulating  
**bone** and hair growth, and use with other agents)  
 IT **Joint, anatomical**  
 (degeneration; NF-.kappa.B inhibitors and inhibitors of proteasomal  
 activity for stimulating **bone** and hair growth)  
 IT **Disease, animal**  
 (dental; NF-.kappa.B inhibitors and inhibitors of proteasomal activity  
 for stimulating **bone** and hair growth)  
 IT **Periodontium**

- (disease; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Hair  
(follicle; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Bone, disease**  
(**fracture**, and **bone** deficiency; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Bone**  
(growth promoters; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT Hair preparations  
(growth stimulants; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Dental materials and appliances  
(implants, post-dental implantation; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Cell differentiation  
(inducers; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT **Bone, neoplasm**  
(inhibitors, **metastasis**; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Bone, neoplasm**  
(**metastasis**, inhibitors; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(morphogenetic, **cartilage**-derived; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT Growth factors, animal  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**osteogenins**; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT **Bone, disease**  
(**osteolytic**; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Isoprenoids**  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(pathway; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Peptides, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(peptidic aldehydes; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Aldehydes, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (peptidyl; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Surgery**  
(plastic, **post-plastic surgery**;  
NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Joint, anatomical**  
**Prosthetic materials and Prosthetics**  
(**post-prosthetic joint surgery**;  
NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Hyperparathyroidism**  
(primary; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Proteins, specific or class  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(proteasome; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Bone**  
(resorption, inhibitors; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT **Hyperparathyroidism**  
(secondary; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **Osteoporosis**  
(therapeutic agents; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT Drug delivery systems  
(topical; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT 67-99-2, Gliotoxin 404-86-4, Capsaicin **6493-05-6**,  
Pentoxifylline 59865-13-3, Cyclosporin A 79902-63-9, Simvastatin 106096-93-9, Basic fibroblast growth factor 110044-82-1 110115-07-6  
**133343-34-7**, Lactacystin 133407-82-6, MG 132 133407-86-0, MG 115 **158442-41-2** 179324-22-2, MG 262  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT **140879-24-9**, Proteasome  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- IT 13598-36-2D, Phosphonic acid, bisphosphonates  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(and statins; NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth, and use with other agents)
- IT **6493-05-6**, Pentoxifylline **133343-34-7**, Lactacystin **158442-41-2**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)
- RN 6493-05-6 HCAPLUS
- CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA

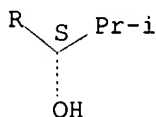
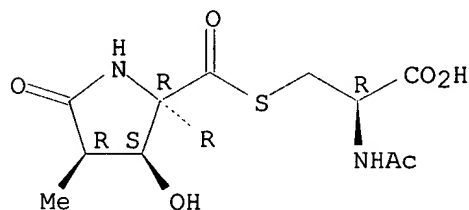
INDEX NAME)



RN 133343-34-7 HCAPLUS

CN L-Cysteine, N-acetyl-, (2R,3S,4R)-3-hydroxy-2-[(1S)-1-hydroxy-2-methylpropyl]-4-methyl-5-oxo-2-pyrimidinylcarboxylate (ester) (9CI) (CA INDEX NAME)

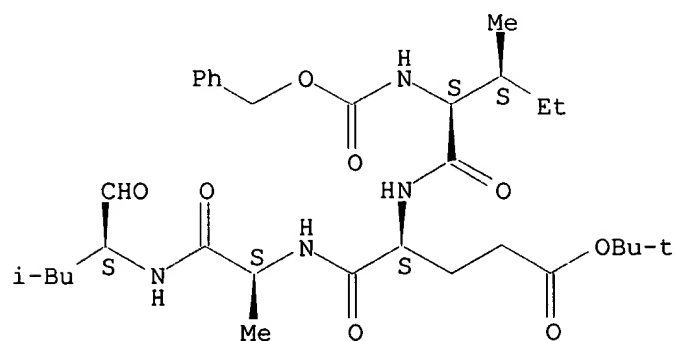
Absolute stereochemistry. Rotation (+).



RN 158442-41-2 HCAPLUS

CN L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-isoleucyl-L-.alpha.-glutamyl-N-[(1S)-1-formyl-3-methylbutyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 140879-24-9, Proteasome

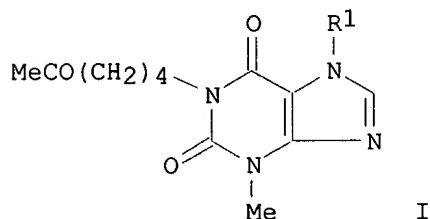
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(NF-.kappa.B inhibitors and inhibitors of proteasomal activity for stimulating **bone** and hair growth)

RN 140879-24-9 HCAPLUS  
 CN Proteinase, multicatalytic (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

L63 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1999:228011 HCAPLUS  
 DN 130:306602  
 TI Xanthine derivatives for prevention and treatment of **bone**  
 diseases  
 IN Takaoka, Kunio  
 PA Hoechst Marion Roussel K. K., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K031-52  
 ICS A61K031-52; C07D473-06  
 CC 1-10 (Pharmacology)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11092379	A2	19990406	JP 1998-216566	19980716 <--
PRAI	JP 1997-212713		19970724 <--		
GI					



AB Xanthine derivs. (I; R1 = C1-3 straight- or branched-chain alkyl) and their salts, including 1-(5-oxohexyl)-3,7-dimethylxanthine and 1-(5-oxohexyl)-3-methyl-7-propylxanthine, are claimed for prevention and treatment of **bone** diseases, including **osteoporosis**. The effects of I on TNF- $\alpha$ -induced **bone** resorption and **bone** healing after **fracture** were tested.

ST xanthine deriv **bone** disease TNF alpha; antiosteoporotic xanthine deriv

IT **Bone, disease**  
 (**fracture**; xanthine derivs. for prevention and treatment of **bone** diseases)

IT **Bone**  
 (resorption; xanthine derivs. for prevention and treatment of **bone** diseases)

IT **Osteoporosis**  
 (therapeutic agents; xanthine derivs. for prevention and treatment of **bone** diseases)

IT **Bone, disease**  
 (xanthine derivs. for prevention and treatment of **bone** diseases)

IT **Tumor** necrosis factors  
 RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study);

## PROC (Process)

(xanthine derivs. for prevention and treatment of **bone** diseases)

IT 69-89-6D, Xanthine, derivs. **6493-05-6**, 1-(5-Oxoheptyl)-3,7-dimethylxanthine 55242-55-2, 1-(5-Oxoheptyl)-3-methyl-7-propylxanthine  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

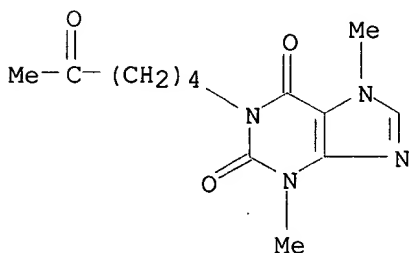
(xanthine derivs. for prevention and treatment of **bone** diseases)

IT **6493-05-6**, 1-(5-Oxoheptyl)-3,7-dimethylxanthine  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(xanthine derivs. for prevention and treatment of **bone** diseases)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxoheptyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:761812 HCAPLUS

DN 130:29195

TI Therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor

IN Feldmann, Marc; Maini, Ravinder Nath; Paleolog, Ewa Maria

PA The Kennedy Institute of Rheumatology, UK

SO PCT Int. Appl., 64 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K039-395

ICS A61K031-00; A61K031-505; A61K038-17; A61K031-505

CC **63-5** (Pharmaceuticals)

Section cross-reference(s): 1, 15

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9851344	A1	19981119	WO 1998-GB1343	19980512 <--
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9873457	A1	19981208	AU 1998-73457	19980512 <--
EP 980258	A1	20000223	EP 1998-920669	19980512 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI  
 JP 2001525816 T2 20011211 JP 1998-548911 19980512 <--  
 EP 1170017 A1 20020109 EP 2001-117491 19980512 <--  
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI

PRAI US 1997-854881 A 19970512 <--  
 EP 1998-920669 A3 19980512 <--  
 WO 1998-GB1343 W 19980512 <--

AB Methods for treating and/or preventing a TNF-mediated disease in an individual are disclosed. Also disclosed are compns. comprising a TNF.alpha. antagonist and a VEGF antagonist. TNF-mediated diseases include rheumatoid arthritis, Crohn's disease, and acute and chronic immune diseases assocd. with transplantation.

ST **tumor** necrosis factor antibody vascular endothelial growth factor immunosuppressant

IT Intestine, disease  
 (Crohn's; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Immunoglobulins  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (G, fusion protein with TNF.alpha. receptor; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Antibodies  
 RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
 (TNF-.alpha.-binding; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Transplant and Transplantation  
 (**bone** marrow; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Antibodies  
 RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
 (chimeric, CA2, TNF-.alpha.-binding; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Nervous system  
 (degeneration; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Immunity  
 (disorder; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT **Tumor** necrosis factor receptors  
 RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (fusion protein with IgG; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Transplant and Transplantation  
 (heart; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT **Tumor** necrosis factors  
 RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (inhibitors; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

IT Transplant and Transplantation  
 (kidney; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

- IT Transplant and Transplantation  
(liver; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Transplant and Transplantation  
Transplant and Transplantation  
(lung; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Transplant and Transplantation  
(pancreas; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Transplant and Transplantation  
(skin; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Transplant and Transplantation  
Transplant and Transplantation  
(small intestine; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Intestine  
Intestine  
(small, transplant; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Anti-inflammatory agents  
Antirheumatic agents  
Autoimmune disease  
Immunosuppressants  
Inflammation  
Rheumatoid arthritis  
(therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT **Bone marrow**  
Heart  
Kidney  
Liver  
Lung  
Lung  
Pancreas  
Skin  
(transplant; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT Antibodies  
RL: BPN (Biosynthetic preparation); BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)  
(vascular endothelial growth factor-binding; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT 127464-60-2, Vascular endothelial growth factor  
RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(inhibitors; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT 9025-82-5, Phosphodiesterase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)
- IT 50-35-1, Thalidomide 59-05-2, Methotrexate 6493-05-6, Pentoxifylline  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(therapeutic suppression of **tumor** necrosis factor-.alpha. and vascular endothelial growth factor)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; ARTHRITIS & RHEUMATISM 9 suppl
- (2) Feldmann, M; EUR CYTOKINE NETWORK V8(3), P297 HCAPLUS
- (3) Feldmann, M; Int Arch Allergy Immunol 1996, V111(4), P362 HCAPLUS
- (4) Genentech Inc; WO 9410202 A 1994 HCAPLUS
- (5) Immunex Corp; WO 9406476 A 1994 HCAPLUS
- (6) Kavanaugh, A; 60TH NATIONAL SCIENTIFIC MEETING OF THE AMERICAN COLLEGE OF RHEUMATOLOGY AND THE 31ST NATIONAL SCIENTIFIC MEETING OF THE ASSOCIATION OF RHEUMATOLOGY HEALTH PROFESSIONALS 1996
- (7) Kennedy Inst Of Rheumatology; WO 9730088 A 1997 HCAPLUS
- (8) Maini Ravinder Nath; WO 9805357 A 1998 HCAPLUS
- (9) Univ New York; WO 9216553 A 1992 HCAPLUS
- (10) van Deventer, S; CLINICAL NUTRITION (EDINBURGH) 1997, V16(6), P271 HCAPLUS

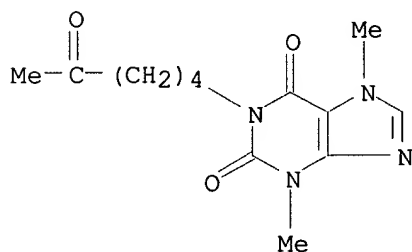
IT 6493-05-6, Pentoxifylline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(therapeutic suppression of tumor necrosis factor-.alpha. and vascular endothelial growth factor)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1998:352416 HCAPLUS

DN 129:12439

TI Pentoxifylline synergizes with all-trans retinoic acid to induce differentiation of HL-60 myelocytic cells, but suppresses tRA-augmented clonal growth of normal CFU-GM

AU Yang, Kuender D.; Chao, C. Y.; Shaio, M. F.

CS Children's Hospital, Chang Gung Medical College, Kaohsiung, 833, Taiwan

SO Acta Haematologica (1998), 99(4), 191-199

CODEN: ACHAAH; ISSN: 0001-5792

PB S. Karger AG

DT Journal

LA English

CC 1-6 (Pharmacology)

AB All-trans retinoic acid (tRA) has been shown to promote terminal differentiation of promyelocytic leukemia cells, but frequently induce hyperleukocytosis and pulmonary leakage syndrome. Employing pentoxifylline (PTX), a phosphodiesterase inhibitor which could raise intracellular cAMP and modulate leukocyte activation, we sought to investigate if PTX could enhance tRA-induced promyelocytic leukemic cell differentiation but suppress tRA-augmented growth and activation of human granulocytes. TRA could significantly suppress clonal growth of U937 and HL-60 leukemic cells but enhanced the CFU-GM formation of normal bone marrow cells (22 vs. 90 CFU/ well). PTX significantly augmented tRA suppression of clonal growth of U937 and HL-60 leukemic cells but suppressed tRA-augmented CFU-GM formation of normal bone

marrow cells (90 vs. 25 CFU/well). In addn., PTX enhanced tRA-induced growth inhibition and differentiation of pro-myelocytic HL-60 leukemic cells, but suppressed respiratory burst activation by the immature granulocytic HL-60 cells and suppressed CD11b adhesion mol. expression by mature granulocytes. PTX similar to dibutyric cAMP promoted HL-60 myelocytic leukemic cell differentiation and growth inhibition, whereas PTX, in contrast to dibutyric cAMP which could augment phorbol myristate acetate (PMA)-elicited respiratory burst activity by immature granulocytes, suppressed the PMA-elicited respiratory burst activity by immature and mature granulocytes. PTX did not raise the intracellular cAMP level of HL-60 cells, but partly suppressed the dibutyric cAMP-elicited elevation of intracellular cAMP level. Results from these studies suggest that PTX might act through different signaling pathways to enhance tRA-induced myelocytic leukemic cell differentiation but prevent from hyperreactive normal granulopoiesis and granulocyte activation.

ST pentoxifylline synergist retinoic acid cell differentiation

IT Cell differentiation

#### Leukemia

(pentoxifylline synergizes with all-trans retinoic acid differentiation of HL-60 cells, but suppresses tRA-augmented clonal growth of normal CFU-GM)

IT 302-79-4, Retinoic acid

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(all-trans; pentoxifylline synergizes with all-trans retinoic acid differentiation of HL-60 cells, but suppresses tRA-augmented clonal growth of normal CFU-GM)

IT 6493-05-6, Pentoxifylline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pentoxifylline synergizes with all-trans retinoic acid differentiation of HL-60 cells, but suppresses tRA-augmented clonal growth of normal CFU-GM)

IT 60-92-4, CAMP

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(pentoxifylline synergizes with all-trans retinoic acid differentiation of HL-60 cells, but suppresses tRA-augmented clonal growth of normal CFU-GM)

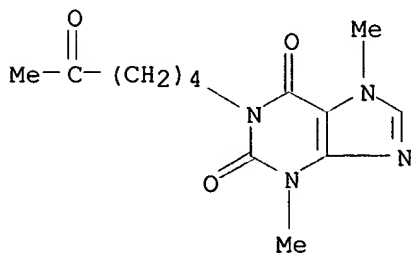
IT 6493-05-6, Pentoxifylline

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(pentoxifylline synergizes with all-trans retinoic acid differentiation of HL-60 cells, but suppresses tRA-augmented clonal growth of normal CFU-GM)

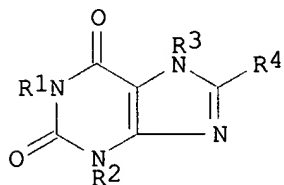
RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)

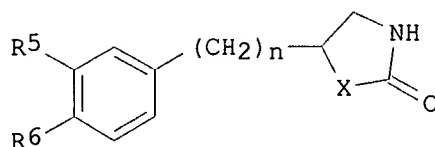


L63 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1997:556008 HCAPLUS  
 DN 127:156735  
 TI Phosphodiesterase IV inhibitors for treatment of **osteoporosis**  
 IN Miyamoto, Kenichi; Kasugai, Shohei; Waki, Takahiro; Sawanishi, Hiroyuki  
 PA Miyamoto, Kenichi, Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM A61K045-00  
 ICS A61K031-40; A61K031-415; A61K031-52; C07D207-26; C07D233-34;  
 C07D473-06; C12N009-99  
 CC 1-10 (Pharmacology)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09169665	A2	19970630	JP 1995-354850	19951221 <--
OS	MARPAT 127:156735				
GI					



I



II

AB Phosphodiesterase IV inhibitors I (R1 = H, low alkyloxyl, C1-C6 alkyl with or without acyl substitution; R2 = H, low alkyl; R3 = H, low alkyl with or without acyl substitution; R4 = H, C3-C7 cycloalkyl) e.g. xanthine derivs. or II ( R5, R6 = low alkyloxyl, C3-C7 cycloalkyloxyl; n = 0 or 1; X = -CH2- or -NH-) and their pharmaceutical acceptable salts are claimed for treatment of **osteoporosis**. The phosphodiesterase IV-inhibiting and **bone** formation-stimulating actions of I and II were tested.

ST phosphodiesterase IV inhibitor xanthine deriv **osteoporosis**

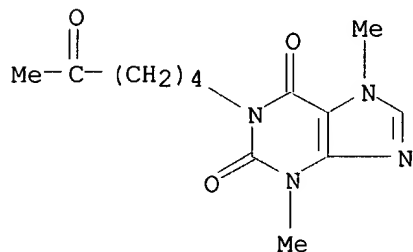
IT **Bone formation**  
 (phosphodiesterase IV inhibitors for treatment of **osteoporosis**)

IT **Osteoporosis**  
 (therapeutic agents; phosphodiesterase IV inhibitors for treatment of **osteoporosis**)

IT 9036-21-9, Phosphodiesterase IV  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (inhibitors; phosphodiesterase IV inhibitors for treatment of **osteoporosis**)

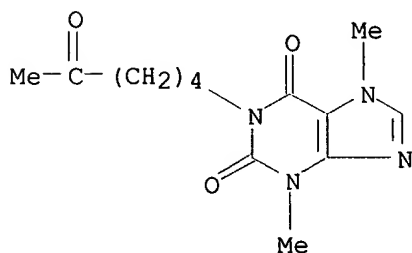
IT 58-55-9, biological studies 2850-36-4 6493-05-6 7464-76-8  
 28822-58-4 29925-17-5 31542-48-0 31542-53-7 31542-62-8  
 41078-02-8 55242-55-2 57076-71-8 94733-93-4 102146-07-6  
 118024-67-2 121875-96-5 125573-05-9 131627-58-2 135462-05-4  
 135462-18-9 135462-19-0 135484-46-7 137002-96-1 137027-45-3  
 137296-49-2 139093-27-9  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (phosphodiesterase IV inhibitors for treatment of **osteoporosis**)

)  
 IT 6493-05-6  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (phosphodiesterase IV inhibitors for treatment of **osteoporosis**)  
 )  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



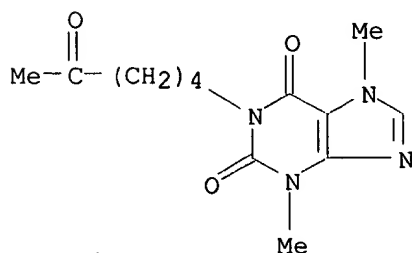
L63 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1997:519052 HCAPLUS  
 DN 127:210305  
 TI **Tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost  
 AU Swartbol, P.; Truedsson, L.; Parsson, H.; Norgren, L.  
 CS Dep. Surgery, Lund Univ., Lund, S-221 85, Swed.  
 SO Journal of Biomedical Materials Research (1997), 36(3), 400-406  
 CODEN: JBMRBG; ISSN: 0021-9304  
 PB Wiley  
 DT Journal  
 LA English  
 CC 63-7 (Pharmaceuticals)  
 Section cross-reference(s): 1  
 AB Inflammatory mediators such as cytokines produced by white blood cells (WBCs) at the site of implantation are important for the biocompatibility of vascular grafts. The aim of the present study was to demonstrate the **tumor** necrosis factor-.alpha. (TNF-.alpha.) and interleukin-6 (IL-6) release from WBCs incubated with expanded polytetrafluoroethylene (ePTFE) or woven Dacron grafts. In a second series the effects of pentoxifylline (PTX) and iloprost (ILO), both known to inhibit white blood cell function, on this release were detd. Woven Dacron grafts induced significantly higher release of both TNF-.alpha. and IL-6 compared to ePTFE. TNF-.alpha. was detectable first after 2 h, whereas IL-6 was seen after 4 h. Maximum values were reached at 6 and 12 h, resp. The addn. of an endotoxin gave more pronounced patterns of cytokine release not influenced by time. Preincubation with both PTX and ILO at final concns. of 100 and 10 .mu.g/mL, resp., reduced significantly the TNF-.alpha. release without differences between the two graft materials, whereas the effect on the IL-6 release varied and was graft material-dependent. In conclusion, graft material- dependent induction of TNF-.alpha. and IL-6 from WBCs was demonstrated. PTX and ILO influenced the cytokine release. It might be suggested that graft material-induced cytokine prodn. could contribute to intimal hyperplasia in vivo. The present findings encourage further studies regarding graft material-induced WBC alterations and the role of pharmacol. agents influencing this function.  
 ST leukocyte cytokine release vascular implant pentoxifylline; iloprost leukocyte cytokine release vascular implant

- IT **Prosthetic materials and Prosthetics**  
(implants, vascular; **tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost)
- IT Fluoropolymers, biological studies  
Polyester fibers, biological studies  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost)
- IT 9002-84-0, Polytetrafluoroethylene  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost)
- IT 6493-05-6, Pentoxifylline 78919-13-8, Iloprost  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost)
- IT 6493-05-6, Pentoxifylline  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(**tumor** necrosis factor-.alpha. and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by pentoxifylline and iloprost)
- RN 6493-05-6 HCAPLUS
- CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
AN 1997:234397 HCAPLUS  
DN 126:311959  
TI Trenal effect on collagen proteolysis in experimental aseptic infarction of the long bone  
AU Magomedov, S.; Grigorovskii, V. V.  
CS UNII Travmatol. i Ortoped., MZ Ukrainy, Kiev, Ukraine  
SO Ukrainskii Biokhimicheskii Zhurnal (1996), 68(5), 69-76  
CODEN: UBZHD4; ISSN: 0201-8470  
PB Naukova Dumka  
DT Journal

LA Russian  
 CC 1-8 (Pharmacology)  
 AB Dynamics of biochem. parameters of the connective tissue and morphometric parameters of lesion were studied in rabbits with induced embolic aseptic infarction of the femur with and without pentoxifylline (Trental) treatment. The correlation was found between proteolytic activity and the vol. of **bone** marrow necrosis, collagenase activity and the rate of regeneration of **bone** cortex, and the concn. of protein-bound hydroxyproline and a vol. of endosteal regeneration. Trental increased the correlation between the vol. of hydroxyproline fraction and the extent of endosteal regeneration.  
 ST Trental collagen proteolysis **bone** ischemia  
 IT Protein degradation  
   (Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT Collagens, biological studies  
   RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
   (Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT Ischemia  
   (**bone**; Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT **Bone, disease**  
   (ischemia; Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT **6493-05-6, Trental**  
   RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
   (Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT 51-35-4, Hydroxyproline 9001-12-1, Collagenase 9047-22-7, Cathepsin b  
   RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
   (Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 IT **6493-05-6, Trental**  
   RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
   (Trental effects on collagen proteolysis in exptl. aseptic infarction of long **bone**)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



TI Immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods

IN Mak, Vivien H. W.

PA De Novo Corp, USA

SO PCT Int. Appl., 129 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K045-00

ICS C12N015-00; C12N015-09; C12N015-19; C12Q001-00; C12Q001-66;  
G01N033-53

CC 1-1 (Pharmacology)

Section cross-reference(s): 15, 63

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	WO 9527510	A1	19951019	WO 1995-US4677	19950411	<--
	W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT					
	RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
	AU 9523857	A1	19951030	AU 1995-23857	19950411	<--
	EP 757558	A1	19970212	EP 1995-917009	19950411	<--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE					
	JP 10500669	T2	19980120	JP 1995-526541	19950411	<--
	EP 937460	A2	19990825	EP 1999-201333	19950411	<--
	EP 937460	A3	20000405			
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE					
	US 5962477	A	19991005	US 1998-97441	19980615	<--
	US 6190691	B1	20010220	US 1998-97440	19980615	<--
PRAI	US 1994-225991	A2	19940412			<--
	US 1994-271287	A	19940706			<--
	US 1995-400234	A	19950303			<--
	EP 1995-917009	A3	19950411			<--
	WO 1995-US4677	W	19950411			<--
	US 1995-463819	B1	19950605			<--

AB Screening methods are provided for evaluating compds. capable of suppressing cytokine prodn. either in vitro or in vivo. The methods generally involve stimulating the prodn. of a cytokine in a cell, exposing a portion of the cells to a putative cytokine-modulating agent, and detg. subsequent levels of cytokine prodn. in the cells. Addnl., the present invention provides certain compds. identified by this method, as well as methods for treating conditions modulated by TNF. The methodol. of the invention may be used for e.g. prevention or redn. of transdermal drug delivery system-induced irritation and treatment of skin or systemic inflammatory conditions. Examples include e.g. inhibition of stimulated cytokine prodn. in human cells by a variety of drugs. Verapamil was effective in preventing the development of skin inflammatory responses in mice.

ST inflammation inhibitor immunomodulator screening; cytokine inhibiting agent screening; therapeutic skin systemic inflammation

IT Lymphokines and Cytokines

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(KC, mRNA for; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Electric field

(cytokine prodn.-modulating; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Ribonucleic acids, messenger

RL: BOC (Biological occurrence); BIOL (Biological study); OCCU

- (Occurrence)  
 (for cytokine or MHC class II mol.; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Acquired immune deficiency syndrome  
 Animal tissue culture  
 Antidiabetics and Hypoglycemics  
 Cachexia  
 Dermatitis  
 Immunomodulators  
 Inflammation inhibitors  
 Lupus erythematosus  
 Multiple sclerosis  
 Psoriasis  
 Therapeutics  
 Transcription, genetic  
 Transplant and Transplantation  
 (immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Allergens  
 RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
 (immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Diarrhea  
 (inhibitors; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Iontophoresis  
 (iontophoretic current, cytokine prodn.-modulating; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Ischemia  
 (reperfusion; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Gene  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (reporter; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Bone  
 (resorption; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Ultraviolet radiation  
 (skin inflammation induced by; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Cosmetics  
 (skin sensitization or irritation from; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Gene, animal  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (transcription frequency; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Intestine, disease  
 (Crohn's, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Glycoproteins, specific or class  
 RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
 (ICAM-1 (intercellular adhesion mol. 1), immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)
- IT Histocompatibility antigens  
 RL: BPR (Biological process); BIOL (Biological study); PROC (Process)  
 (MHC (major histocompatibility antigen complex), class II, immune- and inflammation-modulating cytokine-inhibiting agent screening and

therapeutic methods)

IT Respiratory distress syndrome  
(adult, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Bronchodilators  
(antiasthmatics, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Inflammation inhibitors  
(antirheumatics, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Dermatitis  
(atopic, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Ion channel blockers  
(calcium, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Gene  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(chimeric, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Dermatitis  
(contact, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Shock  
(endotoxin, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Transplant and Transplantation  
(graft-vs.-host reaction, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Allergy  
(hypersensitivity, contact, allergic; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Eye, disease  
(inflammation, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Intestine, disease  
(inflammatory, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Lymphokines and Cytokines  
RL: BOC (Biological occurrence); BPR (Biological process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(interleukin 1, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Lymphokines and Cytokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(interleukin 10, mRNA; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Lymphokines and Cytokines  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(interleukin 1.alpha., mRNA; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Lymphokines and Cytokines  
RL: BOC (Biological occurrence); BIOL (Biological study); OCCU (Occurrence)  
(interleukin 1.beta., immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Skin  
(keratinocyte, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Diuretics  
(loop, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Diuretics

(potassium-sparing, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Perfusion  
(re-, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Pharmaceutical dosage forms  
(transdermal, skin adverse reaction from; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Lymphokines and Cytokines  
RL: BOC (Biological occurrence); BPR (Biological process); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
(**tumor** necrosis factor, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT Adrenergic agonists  
(.beta.-, immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT 7440-70-2, Calcium, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(channel, blockers; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT 56-75-7, Chloramphenicol 9014-00-0, Luciferase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(gene; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT 50-35-1, Thalidomide 50-52-2, Thioridazine 51-41-2, Arterenol 52-01-7, Spironolactone 52-53-9, Verapamil 54-31-9, Furosemide 915-30-0, Diphenoxylate 1143-38-0, Dithranol 1214-79-5 1845-11-0, Nafoxidine 2062-78-4, Pimozide 2609-46-3, Amiloride **6493-05-6**, Pentoxifylline 10540-29-1, Tamoxifen 21829-25-4, Nifedipine 23031-25-6, Terbutaline 29925-17-5, RO 20-1724 36622-29-4, (-)-Verapamil 38321-02-7, (+)-Verapamil 42399-41-7, Diltiazem 52468-60-7, Flunarizine 53179-11-6, Loperamide 55985-32-5, Nicardipine 64706-54-3, Bepridil 66085-59-4, Nimodipine 75695-93-1, Isradipine 100427-26-7, Rec 15/2375  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT 58-94-6D, Thiazide, derivs. 140-29-4D, Benzeneacetonitrile, derivs. 27790-75-6D, Dihydropyridine, derivs. 73087-48-6D, 1,5-Benzothiazepin-4(5H)-one, derivs.  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

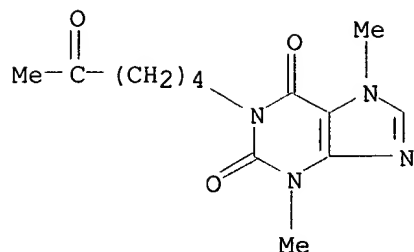
IT 9025-82-5, Phosphodiesterase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(inhibitors; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT 302-79-4, Retin-A  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(skin inflammation from; immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

IT **6493-05-6**, Pentoxifylline  
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(immune- and inflammation-modulating cytokine-inhibiting agent screening and therapeutic methods)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1995:624053 HCAPLUS  
 DN 123:40874  
 TI Regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts by interferons-alpha, -beta and -gamma and pentoxifylline  
 AU Duncan, Matthew R.; Berman, Brian; Cedars, Michael G.  
 CS Fr.  
 SO Eur. J. Dermatol. (1995), 5(2), 156-9  
 CODEN: EJDEE4; ISSN: 1167-1122  
 DT Journal  
 LA English  
 CC 63-7 (Pharmaceuticals)  
 Section cross-reference(s): 15  
 AB To det. the therapeutic potential of interferon (IFN) and pentoxifylline treatment for breast implant capsule contractures, we investigated the effect of human recombinant (hu-r) IFNs and pentoxifylline on cultured fibroblasts derived from a fibrotic capsule which developed around an implanted breast prosthesis. Treatment of cultured fibroblasts with hu-r-IFN-alpha2b, hu-r-IFN-beta-ser17 or hu-r-IFN-gamma resulted in reduced fibroblast collagen prodn. Hu-r-IFN-alpha and -beta inhibited fibroblast glycosaminoglycan (GAG) prodn., while hu-r-IFN-gamma increased GAG prodn. Pentoxifylline treatment of cultured breast implant capsule fibroblasts markedly inhibited their collagen and GAG prodn. These results demonstrate that IFNs, esp. IFNs-alpha and -beta, and pentoxifylline exhibit antifibrotic activity on breast implant capsule fibroblasts and suggest a rationale for using these agents to treat breast implant capsule fibrosis, a specific form of post-surgical scarring.  
 ST breast implant capsule fibroblast collagen glycosaminoglycan; interferon pentoxifylline collagen glycosaminoglycan fibroblast  
 IT Fibroblast  
 (interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)  
 IT Collagens, biological studies  
 Glycosaminoglycans, biological studies  
 RL: MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)  
 (interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)  
 IT Mammary gland  
 (artificial, interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)  
 IT Mammary gland  
 (disease, fibrosis; interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)  
 IT Prosthetic materials and Prosthetics  
 (implants, interferons and pentoxifylline regulation of collagen and

glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

IT Interferons

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.alpha.2, human recombinant; interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

IT Interferons

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.beta., human recombinant; interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

IT Interferons

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(.gamma., human recombinant; interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

IT 6493-05-6, Pentoxifylline

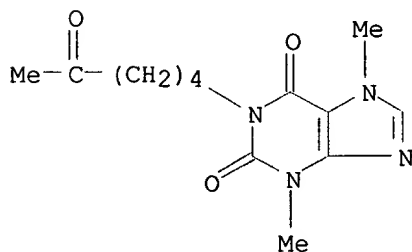
RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

IT 6493-05-6, Pentoxifylline

RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(interferons and pentoxifylline regulation of collagen and glycosaminoglycan biosynthesis by human breast implant capsule fibroblasts)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1995:519036 HCAPLUS

DN 122:274087

TI Chewable delayed-release tablet

IN Korsatko, Werner; Korsatko, Brigitte; Tritthart, Wolfram

PA Austria

SO Ger. Offen., 10 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM A61K009-22

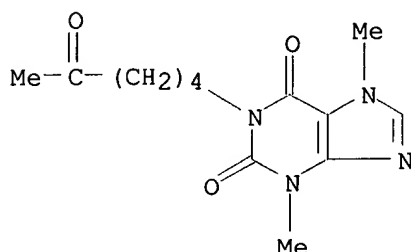
ICS A61K033-16; A61K033-06

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 4333190	A1	19950330	DE 1993-4333190	19930929 <--
	DE 4333190	C2	19960530		
	WO 9508988	A1	19950406	WO 1994-EP3166	19940922 <--
	W: AU, CA, CN, CZ, FI, HU, JP, KR, NO, PL, RU, SK, UA, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9478088	A1	19950418	AU 1994-78088	19940922 <--
	EP 715515	A1	19960612	EP 1994-928795	19940922 <--
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL, PT				
PRAI	DE 1993-4333190		19930929 <--		
	WO 1994-EP3166		19940922 <--		
AB	A delayed-release tablet comprises a chewable mass contg. active ingredient in microparticles which are not disrupted during chewing, owing to their strength and elasticity. The microparticles may have a matrix of Eudragit or cellulose deriv. and a shell of the same materials. Thus, tablets based on tri-Ca citrate, citric acid, sorbitol, aspartame, orange flavoring, and Mg stearate and contg. microparticles composed of Na monofluorophosphate 42.0, lactose 8.0, Avicel PH101 27.0, Methocel K100 8.0, hydroxypropylmethylcellulose phthalate 12.0, and di-Et phthalate (plasticizer) 3.0% released active substance over a period of 6 h.				
ST	delayed release chewable tablet; Eudragit delayed release chewable tablet; cellulose deriv delayed release chewable tablet				
IT	Allergy inhibitors Antihypertensives Circulation Diuretics Inflammation inhibitors <b>Osteoporosis</b> Plasticizers Vasodilators (chewable delayed-release tablet)				
IT	Antihistaminics (H2, chewable delayed-release tablet)				
IT	Inflammation inhibitors (antirheumatics, chewable delayed-release tablet)				
IT	Pharmaceutical dosage forms (microparticles, chewable delayed-release tablet)				
IT	Pharmaceutical dosage forms (tablets, delayed-release, chewable delayed-release tablet)				
IT	Adrenergic antagonists (.alpha.-, chewable delayed-release tablet)				
IT	Adrenergic antagonists (.beta.-, chewable delayed-release tablet)				
IT	54-31-9, Furosemide 58-93-5, Hydrochlorothiazide 471-34-1, Calcium carbonate, biological studies 525-66-6, Propranolol 813-94-5, Tricalcium citrate 1185-56-4 3200-06-4 4205-90-7, Clonidine 6493-05-6, Pentoxifylline 7440-70-2D, Calcium, complexes and salts 7681-49-4, Sodium fluoride, biological studies 10103-46-5, Calcium phosphate 10163-15-2, Sodium monofluorophosphate 15307-79-6, Diclofenac sodium 15307-86-5, Diclofenac 29122-68-7, Atenolol 31329-57-4D, Naftidrofuryl, salts 51481-61-9, Cimetidine 66357-35-5, Ranitidine 79794-75-5, Loratadine				
	RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (chewable delayed-release tablet)				
IT	9004-34-6, Avicel PH 101, biological studies 9004-34-6D, Cellulose, derivs. 9004-38-0, Cellulose acetate phthalate 9004-57-3, Ethylcellulose 9004-62-0, Hydroxyethylcellulose 9004-64-2, Hydroxypropylcellulose 9004-67-5, Methylcellulose 9050-31-1, Hydroxypropylmethylcellulose phthalate 9065-11-6, Eudragit 25086-15-1, Eudragit S 100 25212-88-8 33434-24-1, Eudragit RS				
	RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)				

(chewable delayed-release tablet)  
 IT 77-93-0, Triethyl citrate 84-66-2, Diethyl phthalate 84-74-2, Dibutyl phthalate  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (plasticizer; chewable delayed-release tablet)  
 IT 6493-05-6, Pentoxifylline  
 RL: BAC (Biological activity or effector, except adverse); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (chewable delayed-release tablet)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1995:227140 HCAPLUS  
 DN 122:151367  
 TI Compounds for treatment of proliferative diseases mediated by second messengers  
 IN Leigh, Alistair; Michnick, John; Kumar, Anil; Underiner, Gail; Rice, Glenn C.; Klein, J. Peter; Reddy, Dandu  
 PA Cell Therapeutics, Inc., USA  
 SO PCT Int. Appl., 68 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K031-52  
 ICS A61K031-40; C07D473-06; C07D473-34; C07D403-12; C07D413-14; C07D031-495; C07D031-505  
 CC 1-6 (Pharmacology)  
 Section cross-reference(s): 10, 28  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9422449	A1	19941013	WO 1994-US3610	19940401 <--
	W: AU, CA, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5670506	A	19970923	US 1993-42946	19930405 <--
	AU 9466238	A1	19941024	AU 1994-66238	19940401 <--
	EP 714302	A1	19960605	EP 1994-914005	19940401 <--
	R: DE, FR, GB, IT				
PRAI	US 1993-42946		19930405	<--	
	WO 1994-US3610		19940401	<--	
OS	MARPAT 122:151367				
AB	Carbocyclic and heterocyclic compds. with 5-7 ring atoms are prepd. which are useful as antiproliferative agents for treatment and prevention of diseases mediated by 2nd-messenger pathways. Thus, 1-(6-chloro-5-oxohexyl)-3,7-dimethylxanthine at 100 .mu.M inhibited by 88% the degranulation of mast cells in response to allergen challenge and strongly inhibited growth of Saccharomyces cerevisiae, an indication of potential topical or systemic antimicrobial activity.				

ST cytostatic heterocyclic compd; antimicrobial heterocyclic compd

IT Acquired immune deficiency syndrome  
Allergy inhibitors  
Alopecia  
Antidiabetics and Hypoglycemics  
Autoimmune disease  
Cytotoxic agents  
Fungicides and Fungistats  
Immunosuppressants  
Lupus erythematosus  
Multiple sclerosis  
    **Neoplasm inhibitors**  
    **Osteoporosis**  
Psoriasis  
Sepsis and Septicemia  
    (compds. for treatment of proliferative diseases mediated by second messengers)

IT Cyclic compounds  
Heterocyclic compounds  
Lactams  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
    (compds. for treatment of proliferative diseases mediated by second messengers)

IT Basophil  
Mast cell  
    (degranulation; compds. for treatment of proliferative diseases mediated by second messengers)

IT Blood vessel  
    (formation of; compds. for treatment of proliferative diseases mediated by second messengers)

IT Signal transduction, biological  
    (inhibition of IL-.beta.-induced; compds. for treatment of proliferative diseases mediated by second messengers)

IT Transplant and Transplantation  
    (rejection; compds. for treatment of proliferative diseases mediated by second messengers)

IT Acquired immune deficiency syndrome  
    (-related complex, compds. for treatment of proliferative diseases mediated by second messengers)

IT Hepatitis  
    (alc., compds. for treatment of proliferative diseases mediated by second messengers)

IT Inflammation inhibitors  
    (antiarthritics, compds. for treatment of proliferative diseases mediated by second messengers)

IT Bronchodilators  
    (antiasthmatics, compds. for treatment of proliferative diseases mediated by second messengers)

IT Antiarteriosclerotics  
    (antiatherosclerotics, compds. for treatment of proliferative diseases mediated by second messengers)

IT Thyroid gland, disease  
    (autoimmune thyroiditis, compds. for treatment of proliferative diseases mediated by second messengers)

IT Artery, disease  
    (coronary, compds. for treatment of proliferative diseases mediated by second messengers)

IT Mental disorder  
    (dementia, HIV-assocd.; compds. for treatment of proliferative diseases mediated by second messengers)

IT Periodontium

- (disease, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Connective tissue  
(disease, scleroderma, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Sleep  
(disorder, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Parturition  
(disorder, premature, secondary to uterine infection; compds. for treatment of proliferative diseases mediated by second messengers)
- IT Kidney, disease  
(glomerulonephritis, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Quaternary ammonium compounds, biological studies  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(heterocyclic, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Uterus, disease  
(infection, premature parturition secondary to; compds. for treatment of proliferative diseases mediated by second messengers)
- IT Intestine, disease  
(inflammatory, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Lymphokines and Cytokines  
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)  
(interleukin 1.beta., antagonists; compds. for treatment of proliferative diseases mediated by second messengers)
- IT **Neoplasm** inhibitors  
(myelogenous leukemia, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Heterocyclic compounds  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(nitrogen, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Artery, disease  
(restenosis, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Shock  
(septic, compds. for treatment of proliferative diseases mediated by second messengers)
- IT Brain, disease  
(stroke, compds. for treatment of proliferative diseases mediated by second messengers)
- IT 53-86-1DP, Indomethacin, derivs. 55-21-0DP, Benzamide, derivs. 65-71-4DP, Thymine, derivs. 65-86-1DP, Orotic acid, derivs. 66-22-8DP, Uracil, derivs. 67-52-7DP, Barbituric acid, derivs. 69-72-7DP, Salicylic acid, derivs. 69-89-6DP, Xanthine, derivs. 69-93-2DP, Uric acid, derivs. 71-43-2DP, Benzene, derivs. 79-77-6DP, .beta.-Ionone, derivs. 83-67-0DP, Theobromine, derivs. 85-41-6DP, Phthalimide, derivs. 91-18-9DP, Pteridine, derivs. 91-20-3DP, Naphthalene, derivs. 91-21-4DP, derivs. 91-22-5DP, Quinoline, derivs. 92-52-4DP, Biphenyl, derivs. 106-51-4DP, 2,5-Cyclohexadiene-1,4-dione, derivs. 108-46-3DP, 1,3-Benzenediol, derivs. 109-97-7DP, Pyrrole, amides 110-82-7DP, Cyclohexane, derivs. 110-86-1DP, Pyridine, derivs. 110-89-4DP, Piperidine, derivs. 123-56-8DP, Succinimide, derivs. 132-86-5DP, 1,3-Dihydroxynaphthalene, derivs. 142-08-5DP, 2-Hydroxypyridine, derivs. 288-32-4DP, Imidazole, derivs. 289-95-2DP, Pyrimidine, derivs. 472-66-2DP, 2,6,6-Trimethyl-1-cyclohexene-1-acetaldehyde, derivs.

487-21-8DP, Lumazine, derivs. 491-30-5DP, 1(2H)-Isoquinolinone, derivs.  
 491-36-1DP, Quinazolin-4(3H)-one, derivs. 588-59-0DP, Stilbene, derivs.  
 611-59-6DP, 1,7-Dimethylxanthine, derivs. 615-77-0DP, 1-Methyluracil,  
 derivs. 696-04-8DP, Dihydrothymine, derivs. 696-11-7DP,  
 1-Methyl-5,6-dihydrouracil, derivs. 1006-08-2DP, 7-Methylhypoxanthine,  
 derivs. 1076-22-8DP, 3-Methylxanthine, derivs. 1121-89-7DP,  
 Glutarimide, derivs. 1123-40-6DP, 3,3-Dimethylglutarimide, derivs.  
 1406-18-4DP, Vitamin E, derivs. 1444-94-6DP, Hexahydrophthalimide,  
 derivs. 4456-77-3DP, Homophthalimide, derivs. 11103-57-4DP, Vitamin A,  
 derivs. 12001-79-5DP, Vitamin K, derivs. 12654-97-6DP, Triazine,  
 derivs. 27813-21-4DP, Tetrahydrophthalimide, derivs. 27942-00-3DP,  
 Methyluracil, derivs. 28473-29-2DP, Cyclopentanedione, derivs.  
 29059-07-2DP, Tetralone, derivs. 30581-70-5DP, Cyclohexanedione, derivs.  
 35121-78-9DP, Prostacyclin, derivs. 38194-50-2DP, Sulindac, derivs.  
 50256-18-3DP, 1-Methyllumazine, derivs. 53126-65-1DP, Tricyclododecane,  
 derivs. 56395-76-7P 79012-66-1P 93667-91-5P 109421-37-6DP, derivs.  
 159431-45-5DP, derivs. 159431-46-6DP, derivs. 159431-47-7P  
 159431-48-8P 159431-49-9P 159431-50-2P 159431-51-3P 159431-52-4P  
 159431-53-5P 159431-54-6P 159431-55-7P 159431-56-8P 159431-57-9P  
 159431-58-0P 159431-59-1P 159431-60-4P 159431-61-5P 159431-62-6P  
 159431-63-7P 159431-64-8P 159431-65-9P 159431-66-0P 159431-67-1P  
 159431-68-2P 159431-69-3P 159431-70-6P 159431-71-7P 159431-72-8P  
 161098-93-7DP, derivs. 161098-94-8DP, derivs. 161271-41-6DP,  
 2H-Quinolizinedione, derivs.  
 RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic  
 preparation); THU (Therapeutic use); BIOL (Biological study); PREP  
 (Preparation); USES (Uses)

(compds. for treatment of proliferative diseases mediated by second  
 messengers)

IT 83-67-0, Theobromine 86-96-4, Benzoyleneurea 2695-47-8,  
 1-Bromo-5-hexene 2695-48-9, 8-Bromo-1-octene 4160-72-9,  
 1-Methylthymine 4286-55-9 **6493-05-6**, Pentoxifylline  
 13019-22-2, 9-Decen-1-ol 89359-54-6, 9-Bromo-1-nonene 159431-78-4  
 RL: RCT (Reactant)

(compds. for treatment of proliferative diseases mediated by second  
 messengers)

IT 604-50-2P 6493-06-7P 38975-41-6P 56395-71-2P 58999-18-1P  
 114640-35-6P 154719-57-0P 154755-53-0P 156918-08-0P 156918-13-7P  
 156918-28-4P 156918-35-3P 156918-57-9P 157523-33-6P 159431-73-9P  
 159431-74-0P 159431-75-1P 159431-76-2P 159431-77-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)

(compds. for treatment of proliferative diseases mediated by second  
 messengers)

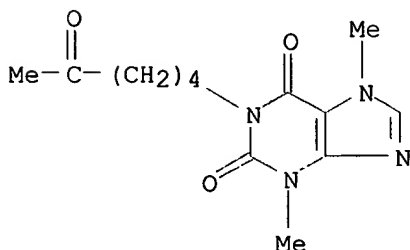
IT **6493-05-6**, Pentoxifylline

RL: RCT (Reactant)

(compds. for treatment of proliferative diseases mediated by second  
 messengers)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA  
 INDEX NAME)



L63 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:622027 HCAPLUS

DN 121:222027

TI Oxime-substituted therapeutic compounds for diseases mediated by intracellular signaling

IN Leigh, Alistair; Klein, J. Peter

PA Cell Therapeutics, Inc., USA

SO PCT Int. Appl., 68 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K031-52

CC 1-12 (Pharmacology)

Section cross-reference(s): 28

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9416704	A1	19940804	WO 1994-US763	19940119 <--
	W: AU, CA, JP, NZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9460927	A1	19940815	AU 1994-60927	19940119 <--
PRAI	US 1993-6083		19930119 <--		
	WO 1994-US763		19940119 <--		

OS MARPAT 121:222027

AB Oxime-substituted compds., preferably cyclic or heterocyclic compds, are disclosed which are useful in a large variety of therapeutic indications for treating or preventing disease mediated by intracellular signaling through specific intracellular signaling pathways. The oxime-substituted compds., and pharmaceutical compns. thereof, have the formula core moiety-(R)<sub>j</sub> [j = 1-3; core moiety = cyclic, noncyclic; R = H, halo, OH, amino, (substituted) C1-10 alkyl, C2-10 alkenyl, (hetero)cyclyl, (CH<sub>2</sub>)<sub>n</sub>C(R<sub>1</sub>)<sub>p</sub> (.gtoreq.1 R is (CH<sub>2</sub>)<sub>n</sub>C(R<sub>1</sub>)<sub>p</sub>) (n = 3-20; p = 2,3; R<sub>1</sub> = H, halo, OH, (substituted) C1-10 alkyl, C1-10 ether, C2-10 alkenyl, (hetero)cyclyl, :NOR2 (R<sub>2</sub> = H, (substituted) C1-10 alkyl, C2-10 alkenyl, (hetero)cyclyl), (CH<sub>2</sub>)<sub>s</sub>C(R<sub>3</sub>)<sub>t</sub> (s = 0-10; t = 2,3; R<sub>3</sub> = H, halo, OH, (substituted) C1-10 alkyl, C1-10 ether, C2-10 alkenyl, (hetero)cyclyl, :NOR2 (R<sub>2</sub> as above)); .gtoreq.1 R<sub>1</sub> or 1 R<sub>3</sub> = :NOR2 (p or t corresponding to the .gtoreq.1 R<sub>1</sub> or 1 R<sub>3</sub> being 2); second R<sub>1</sub> or R<sub>3</sub>, bonded to same C as the .gtoreq.1 R<sub>1</sub> or 1 R<sub>3</sub>, is other than :NOR2)], including resolved enantiomers (both syn and anti forms) and/or diastereomers, hydrates, salts, solvates and mixts. thereof. Oxime-substituted dimethylxanthines were prepd. and tested for inhibition of thymocyte proliferation, for mixed lymphocyte reaction, etc.; 8 specific compds. are claimed. The compds. of the invention can be used in the treatment of inflammatory diseases, asthma, atherosclerosis, AIDS, **malignancies**, septic shock, sleep disorders, etc.

ST oxime deriv therapeutic; dimethylxanthine oxime deriv therapeutic; signal transduction therapeutic oxime deriv; xanthine dimethyl oxime deriv therapeutic

IT Acquired immune deficiency syndrome

Allergy inhibitors

Alopecia

Antidiabetics and Hypoglycemics

Blood vessel

Inflammation inhibitors

Lupus erythematosus

Multiple sclerosis

**Neoplasm** inhibitors

**Osteoporosis**

Psoriasis

Signal transduction, biological

Therapeutics

- (oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Transplant and Transplantation  
(rejection; oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Acquired immune deficiency syndrome  
(-related complex, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Hepatitis  
(alc., oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Inflammation inhibitors  
(antiarthritics, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Bronchodilators  
(antiasthmatics, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Antiartherosclerotics  
(antiatherosclerotics, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Inflammation inhibitors  
(antirheumatics, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Thyroid gland, disease  
(autoimmune thyroiditis, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Adhesion  
(bio-, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Artery, disease  
(coronary, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Mental disorder  
(dementia, HIV-assocd.; oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Periodontium  
(disease, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Connective tissue  
(disease, scleroderma, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Sleep  
(disorder, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Parturition  
(disorder, premature, uterine infection-assocd.; oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Kidney, disease  
(glomerulonephritis, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Virus, animal  
(human immunodeficiency, dementia; oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Intestine, disease  
(inflammatory, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT **Neoplasm** inhibitors  
(myelogenous leukemia, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Heart, disease  
(restenosis, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)
- IT Sepsis and Septicemia

(sepsis syndrome, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT Shock  
(septic, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT Brain, disease  
(stroke, oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT 158327-67-4P 158327-72-1P 158327-73-2P 158327-75-4P 158327-94-7P 158327-95-8P  
RL: BAC (Biological activity or effector, except adverse); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT 83-67-0, Theobromine 109-70-6, 1-Bromo-3-chloropropane 111-87-5, Octanol, reactions 1010-59-9, Sodium theobromine 6294-17-3, 1-Bromo-6-chlorohexane **6493-05-6**, Pentoxifylline 7766-50-9, 10-Undecenyl bromide 39691-62-8, Nonylmagnesium bromide 67232-70-6  
RL: RCT (Reactant)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT 35289-31-7P, 11-Dodecen-1-ol 71612-11-8P 156918-16-0P 156918-17-1P 156918-37-5P 156918-38-6P 156918-46-6P 156918-48-8P 156918-50-2P 156918-51-3P 156918-64-8P 156918-66-0P 158327-74-3P 158327-76-5P 158327-77-6P 158327-78-7P 158327-79-8P 158327-80-1P 158327-81-2P 158327-83-4P 158327-84-5P 158327-86-7P 158327-87-8P 158327-88-9P 158327-89-0P 158327-90-3P 158327-92-5P 158327-93-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT 158327-69-6P 158327-82-3P 158327-85-6P 158327-91-4P  
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

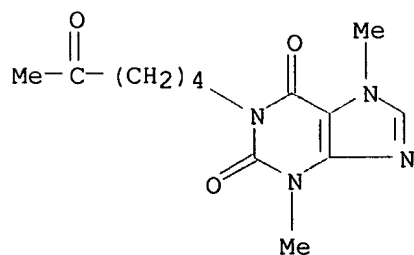
IT 158327-64-1 158327-66-3 158327-68-5 158327-70-9 158327-71-0  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

IT 158327-65-2  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

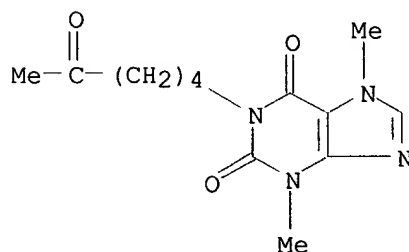
IT **6493-05-6**, Pentoxifylline  
RL: RCT (Reactant)  
(oxime-substituted therapeutic compds. for diseases mediated by intracellular signaling)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1994:499228 HCAPLUS  
 DN 121:99228  
 TI Effect of pentoxifylline, a multidrug resistance reversal agent, on  
 hemopoietic stem cell homing.  
 AU Gude, R. P.; Chitnis, M. P.; Rao, S. G. A.  
 CS Chemother. and Stem Cell Biol. Div., Cancer Res. Inst. Dr. E. Borges Marg,  
 Bombay, India  
 SO Cell Biol. Int. (1994), 18(2), 79-84  
 CODEN: CBIIEV; ISSN: 1065-6995  
 DT Journal  
 LA English  
 CC 1-6 (Pharmacology)  
 AB This paper investigates the mechanism of mouse hemopoietic stem cell  
 homing in mouse **bone** marrow. Pentoxifylline was shown to  
 inhibit stem cell homing. The inhibition was reversible after 6 h. The  
 results obtained suggest that the hemopoietic stem cell homing receptor is  
 anchored to cytoskeletal support intracellularly.  
 ST pentoxifylline hemopoietic stem cell homing; **bone** marrow spleen  
 stem cell pentoxifylline  
 IT **Bone marrow**  
 Spleen  
 (pentoxifylline inhibition of hematopoietic stem cell homing in)  
 IT Hematopoietic precursor cell  
 (stem, pentoxifylline inhibition of homing of, in **bone** marrow  
 and spleen)  
 IT 6493-05-6, Pentoxifylline  
 RL: BIOL (Biological study)  
 (hemopoietic stem cell homing in **bone** marrow and spleen  
 inhibition by, as multidrug resistance reversal agent)  
 IT 6493-05-6, Pentoxifylline  
 RL: BIOL (Biological study)  
 (hemopoietic stem cell homing in **bone** marrow and spleen  
 inhibition by, as multidrug resistance reversal agent)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA  
 INDEX NAME)



L63 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1993:109732 HCAPLUS  
 DN 118:109732  
 TI Modulation of cellular response to external and internal stimuli with  
 xanthine derivatives  
 IN Bianco, James A.; Bursten, Stuart L.; Singer, Jack W.  
 PA Fred Hutchinson Cancer Research Center, USA  
 SO PCT Int. Appl., 79 pp.  
 CODEN: PIXXD2  
 DT Patent

LA English  
 IC ICM A61K031-52  
 CC 63-6 (Pharmaceuticals)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9221344	A2	19921210	WO 1992-US4349	19920522 <--
	WO 9221344	A3	19931209		
	W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
	RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, DE, DK, ES, FR, GA, GB, GN, GR, IT, LU, MC, ML, MR, NL, SE, SN, TD, TG				
	AU 9222475	A1	19930108	AU 1992-22475	19920522 <--
	AU 664189	B2	19951109		
	EP 573617	A1	19931215	EP 1992-915059	19920522 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, SE				
	JP 07500085	T2	19950105	JP 1992-500483	19920522 <--
	EP 1214938	A2	20020619	EP 2001-126058	19920522 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC				
	IL 101982	A1	20000229	IL 1992-101982	19920524 <--
	ZA 9203808	A	19930127	ZA 1992-3808	19920525 <--
	US 5856115	A	19990105	US 1994-196878	19940214 <--
	US 5585380	A	19961217	US 1995-378109	19950125 <--
PRAI	US 1991-704992	A	19910524	<--	
	US 1991-732227	A2	19910716	<--	
	EP 1992-915059	A3	19920522	<--	
	WO 1992-US4349	A	19920522	<--	
	US 1992-888722	B1	19920526	<--	
	US 1993-155361	B1	19931122	<--	
AB	Xanthine derivs. (Markush structures given) are useful in modulating the effects of internal and external stimuli on cells by reversing the effects of these stimuli on the short-term secondary messenger pathways. In particular, the xanthines lower elevated levels of unsatd., nonarachidonate phosphatidic acid and diacylglycerol derived from the phosphatidic acid within seconds of the primary stimulus and their contact with the cells. The modulatory effect depends on the nature of the target cell and the stimulus applied. Effects of pentoxifylline on the mesangial cell activation, <b>malignant</b> transformation of cells, cellular behavior, homeostasis are demonstrated.				
ST	xanthine cell response modulator; pentoxifylline cell stimulus response modulation				
IT	Antigens				
	RL: BIOL (Biological study)				
	(T-cell activation by, xanthine derivs. effect on)				
IT	Macrophage				
	Monocyte				
	(activation by endotoxins in, xanthine derivs. effect on)				
IT	Hematopoietic precursor cell				
	(activation by <b>tumor</b> necrosis factor in, xanthine derivs. effect on)				
IT	<b>Neoplasm</b>				
	(cell activation by oncogenes in, xanthine derivs. effect on)				
IT	Mesenchyme				
	(cell activation by <b>tumor</b> necrosis factor in, xanthine derivs. effect on)				
IT	Blood platelet				
	Erythrocyte				
	(from hematopoietic stem cell, xanthine derivs. effect on)				
IT	Phosphatidic acids				
	RL: BIOL (Biological study)				
	(of animal cells, xanthine derivs. effect on)				
IT	Animal growth regulators				
	RL: BIOL (Biological study)				

- (smooth muscle cell activation by, xanthine derivs. effect on)
- IT Hypertension
  - (xanthine derivs. effect on)
- IT Lymphocyte
  - (B-cell, activation by antigens in, xanthine derivs. effect on)
- IT Lymphocyte
  - (T-cell, activation by antigens in, xanthine derivs. effect on)
- IT Therapeutics
  - (chemo-, hematopoietic stem cell activation by, xanthine derivs. effect on)
- IT Toxins
  - RL: BIOL (Biological study)
  - (endo-, monocyte and macrophage activation by, xanthine derivs. effect on)
- IT Artery
  - (endothelium, activation by hypertension-inducing substances in, xanthine derivs. effect on)
- IT Kidney
  - (glomerulus, epithelial cell activation by interleukin-1 in, xanthine derivs. effect on)
- IT Hematopoietic precursor cell
  - (granulocytic, from hematopoietic, xanthine derivs. effect on)
- IT Hemopoietins
  - RL: FORM (Formation, nonpreparative)
  - (hematopoietic cell growth factors KL, formation of, in **bone** marrow stromal cells, xanthine derivs. effect on)
- IT Virus, animal
  - (human immunodeficiency, T-cell activation by, xanthine derivs. effect on)
- IT Lymphokines and Cytokines
  - RL: BIOL (Biological study)
  - (interleukin 1, kidney mesangial cell activation by, xanthine derivs. effect on)
- IT Lymphokines and Cytokines
  - RL: FORM (Formation, nonpreparative)
  - (interleukin 6, formation of, in **bone** marrow stromal cells, xanthine derivs. effect on)
- IT Kidney
  - (mesangium, activation by interleukin 1 in, xanthine derivs. effect on)
- IT Gene, animal
  - RL: BIOL (Biological study)
  - (onco-, **neoplasm** cell activation by, xanthine derivs. effect on)
- IT Muscle
  - (smooth, cell activation by growth factors in, xanthine derivs. effect on)
- IT Hematopoietic precursor cell
  - (stem, activation by chemotherapeutic agents in, xanthine derivs. effect on)
- IT **Bone marrow**
  - (stroma, activation by **tumor** necrosis factor in, xanthine derivs. effect on)
- IT Lymphokines and Cytokines
  - RL: BIOL (Biological study)
  - (**tumor** necrosis factor, mesenchymal cell activation by, xanthine derivs. effect on)
- IT 9025-77-8, Phosphatidic acid phosphohydrolase 9081-03-2
  - RL: PRP (Properties)
  - (activity of, xanthine derivs. effect on)
- IT 6493-05-6, Pentoxifylline 6493-06-7, 1-(5-Hydroxyhexyl)-3,7-dimethylxanthine 107767-63-5, 1-(5-Methyl-5-hydroxyhexyl)-3,7-dimethylxanthine
  - RL: BIOL (Biological study)

(cellular response to internal and external stimuli modulation by)

IT 81669-70-7, Metalloprotease  
 RL: FORM (Formation, nonpreparative)  
 (formation of, by glomerular epithelial cells, xanthine derivs. effect on)

IT 106956-32-5, Oncostatin-M 143011-72-7, G-CSF  
 RL: FORM (Formation, nonpreparative)  
 (formation of, in **bone** marrow stromal cells, xanthine derivs. effect on)

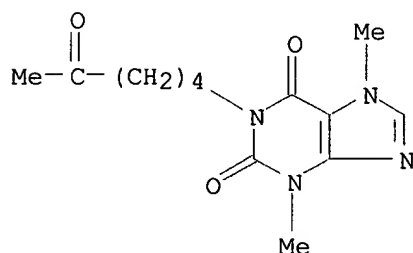
IT 9035-51-2, P 450, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors, xanthine derivs. as)

IT 83869-56-1, GM-CSF  
 RL: BIOL (Biological study)  
 (monocyte and macrophage activation by, xanthine derivs. effect on)

IT 6493-05-6, Pentoxifylline  
 RL: BIOL (Biological study)  
 (cellular response to internal and external stimuli modulation by)

RN 6493-05-6 HCAPLUS

CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2002 ACS

AN 1992:99328 HCAPLUS

DN 116:99328

TI Method for treating equine navicular disease with pentoxifylline, and composition containing pentoxifylline for administrating to horses

IN Drizen, Alan

PA Hyal Pharmaceutical Corp., Can.

SO U.S., 9 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N043-90

NCL 514261000

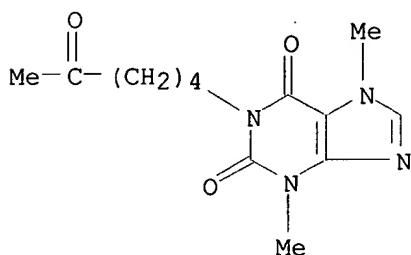
CC 1-8 (Pharmacology)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5077296	A	19911231	US 1987-128175	19871203 <--
AB	Equine navicular disease is treated with a compn. contg. pentoxifylline (I) in a daily dose of 6-30 g to alleviate lameness. Preferably the compn. comprises I 7.2, confectioners' sugar 8.5, corn sugar 83.895, colloidal SiO <sub>2</sub> 0.247, and artificial color 0.158 wt.%. Horses were treated orally with I.				
ST	horse navicular <b>bone</b> disease pentoxifylline				
IT	Horse				
	(navicular disease treatment in, pentoxifylline for)				
IT	Pharmaceutical dosage forms				

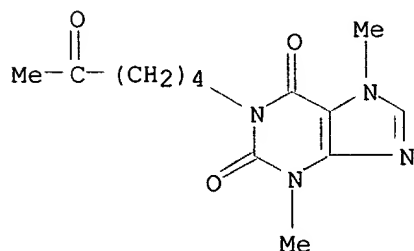
(of pentoxifylline, for navicular disease treatment in horse)  
 IT **Bone**  
 (navicular, treatment of, of horse, with pentoxifylline)  
 IT Pharmaceutical dosage forms  
 (oral, of pentoxifylline, for navicular disease treatment in horse)  
 IT **6493-05-6, Pentoxifylline**  
 RL: BIOL (Biological study)  
 (navicular disease in horse treatment with)  
 IT **6493-05-6, Pentoxifylline**  
 RL: BIOL (Biological study)  
 (navicular disease in horse treatment with)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1991:441508 HCAPLUS  
 DN 115:41508  
 TI Fluosol-DA/carbogen with lonidamine or pentoxifylline as modulators of alkylating agents in the FSAIIC fibrosarcoma  
 AU Teicher, Beverly A.; Herman, Terence S.; Tanaka, Juichi; Dezube, Bruce; Pardee, Arthur; Frei, Emil, III  
 CS Dana-Farber Cancer Inst., Boston, MA, 02115, USA  
 SO Cancer Chemother. Pharmacol. (1991), 28(1), 45-50  
 CODEN: CCPHDZ; ISSN: 0344-5704  
 DT Journal  
 LA English  
 CC 1-6 (Pharmacology)  
 AB In an effort to increase the efficacy of several **antineoplastic** alkylating agents (CDDP, L-PAM, CTX, or BCNU), the authors examd. the effect of the modulator Fluosol-DA/carbogen in combination with a second modulator, either lonidamine or pentoxifylline, on the survival of FSAIIC **tumor** cells and of **bone** marrow CFU-GM from **tumor**-bearing C3H mice. Fluosol-DA/carbogen increased the **tumor**-cell killing activity of each alkylating agent by about 10 times. In contrast, lonidamine alone did not significantly increase the cytotoxic activity of any of the alkylating agents tested. However, in combination with Fluosol-DA/carbogen, the use of lonidamine produced about a 100-fold increase in the **tumor** cell kill achieved with CDDP as compared with CDDP alone. No increase in **tumor** cell kill over that produced with the single modulator Fluosol-DA/carbogen was seen following the addn. of lonidamine to the combination treatment with L-PAM, CTX, or BCNU. Unfortunately, although neither lonidamine nor Fluosol-DA/carbogen alone significantly increased alkylator toxicity to **bone** marrow CFU-GM, the combination of modulators increased the toxicity of each alkylating agent to **bone** marrow by about 10 times. Pentoxifylline caused an increase in alkylator activity against the FSAIIC fibrosarcoma only when used with BCNU; this effect was further augmented by the addn. of Fluosol-DA/carbogen. The combination of modulators pentoxifylline plus Fluosol-DA/carbogen was more effective than

Fluosol-DA/carbogen alone only when the former was used with BCNU, whereas only minimal increases in **tumor**-cell killing activity were obtained with this modulator combination and CDDP, L-PAM, or CTX. Pentoxifylline increased the **bone** marrow CFU-GM toxicity of L-PAM by about 10 times. The **bone** marrow CFU-GM toxicity was further increased by Fluosol-DA/carbogen, as was the toxicity of each of the other alkylating agents. Lonidamine plus Fluosol-DA/carbogen may be useful in increasing the therapeutic efficacy of CDDP, and the combination of pentoxifylline plus Fluosol-DA/carbogen might improve the **antitumor** activity of BCNU.

- ST Fluosol DA carbogen alkylating **antitumor** modulator; lonidamine carbogen alkylating **antitumor** modulator; pentoxifylline Fluosol DA alkylating **antitumor** modulator
- IT **Bone marrow, toxic chemical and physical damage**  
(alkylating agents toxicity to, Fluosol-DA/carbogen with lonidamine or pentoxifylline effect on)
- IT **Neoplasm inhibitors**  
(alkylating agents, **antitumor** activity and **bone marrow** CFU-GM toxicity of, Fluosol-DA and carbogen effect on)
- IT Hematopoietic precursor cell  
(granulocyte-macrophage colony-forming, alkylating agents toxicity to, Fluosol-DA/carbogen with lonidamine or pentoxifylline effect on)
- IT 8063-77-2, Carbogen  
RL: BIOL (Biological study)  
(alkylating agents **antitumor** activity and **bone marrow** CFU-GM toxicity response to Fluosol-DA and)
- IT **6493-05-6, Pentoxifylline** 50264-69-2, Lonidamine  
RL: BIOL (Biological study)  
(alkylating agents **antitumor** activity and **bone marrow** CFU-GM toxicity response to Fluosol-DA and carbogen and)
- IT 75216-20-5, Fluosol-DA  
RL: BIOL (Biological study)  
(alkylating agents **antitumor** activity and **bone marrow** CFU-GM toxicity response to carbogen and)
- IT 50-18-0, Cyclophosphamide 148-82-3, Melphalan 154-93-8, BCNU 15663-27-1, Cisplatin  
RL: BIOL (Biological study)  
(**antitumor** activity and **bone marrow** CFU-GM toxicity of, Fluosol-DA and carbogen effect on)
- IT **6493-05-6, Pentoxifylline**  
RL: BIOL (Biological study)  
(alkylating agents **antitumor** activity and **bone marrow** CFU-GM toxicity response to Fluosol-DA and carbogen and)
- RN 6493-05-6 HCAPLUS
- CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



TI DNA repair and drug resistance. Enhancement of the effects of **anticancer** agents by DNA repair inhibitors

AU Tomita, Katsuro; Tsuchiya, Hiroyuki; Sasaki, Takuma

CS Sch. Med., Kanazawa Univ., Kanazawa, Japan

SO Gan to Kagaku Ryoho (1989), 16(3, Pt. 2), 576-84

CODEN: GTKRDX; ISSN: 0385-0684

DT Journal

LA Japanese

CC 1-6 (Pharmacology)

AB Recently, it has been revealed that **anticancer** effects are increased by inhibition of DNA repair of **cancer** cells. Methylxanthines block DNA repair. The combined effects of CDDP and caffeine or pentoxifylline were studied by using human **osteosarcoma** cells (OST strain). When 2 mM caffeine was added before 1 h exposure of CDDP or caffeine and CDDP was added simultaneously for 1 h, no synergistic effect was shown. On the other hand, marked synergistic growth inhibition was obsd. when caffeine or pentoxifylline was added continuously after 1 h exposure of CDDP. The addn. of caffeine from 24 to 48 h after 1 h exposure of CDDP also showed synergistic effects as the doubling time of OST cells was about 30 h. Three patients with advanced **osteosarcomas** were treated with the combination of CDDP, ADM (adriamycin), and caffeine or that of CDDP and caffeine. A 9-yr-old boy with multicentric **osteosarcoma** treated by the combination of CDDP, ADM, and caffeine showed partial response, and caffeine did not increase the side effects of **anticancer** agents. Hence the study on overcoming drug resistance by the inhibition of DNA repair will be promising.

ST **antitumor** resistance methylxanthine DNA repair inhibitor

IT Deoxyribonucleic acid repair  
(inhibitors, methylxanthines as, **antitumor** drug resistance inhibition by)

IT Drug resistance  
(of **osteosarcoma** to **antitumor** agents,  
methylxanthine DNA-repair inhibitors inhibition of, in humans)

IT **Neoplasm inhibitors**  
(**osteosarcoma**, resistance to, methylxanthine DNA-repair inhibitors decrease of, in humans)

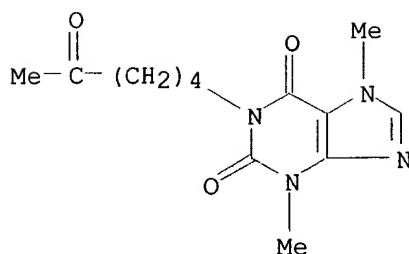
IT 15663-27-1, CDDP 23214-92-8, Adriamycin  
RL: BIOL (Biological study)  
(**osteosarcoma** inhibition by, DNA repair inhibitors  
methylxanthines enhancement of, drug resistance inhibition in, in humans)

IT 58-08-2, Caffeine, biological studies 58-55-9, Theophylline, biological studies **6493-05-6**, Pentoxifylline 28109-92-4D, Methylxanthine, derivs.  
RL: BIOL (Biological study)  
(**osteosarcoma** resistance to **antitumor** agents inhibition by, in humans)

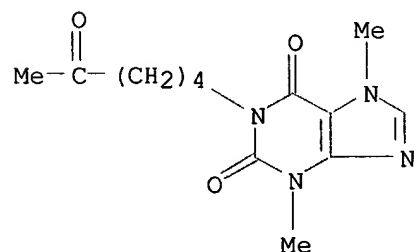
IT **6493-05-6**, Pentoxifylline  
RL: BIOL (Biological study)  
(**osteosarcoma** resistance to **antitumor** agents inhibition by, in humans)

RN **6493-05-6** HCAPLUS

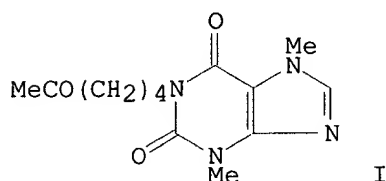
CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



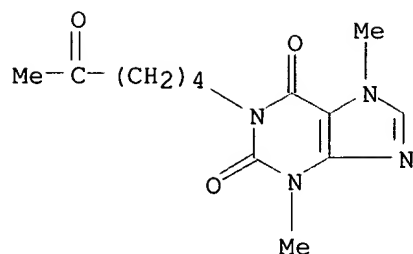
L63 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1985:125570 HCAPLUS  
 DN 102:125570  
 TI Study of antiosteoporotic agents in tissue culture  
 AU Robin, J. C.; Ambrus, J. L.  
 CS Roswell Park Mem. Inst., Buffalo, NY, 14263, USA  
 SO J. Med. (Westbury, N. Y.) (1984), 15(4), 319-22  
 CODEN: JNMDBO; ISSN: 0025-7850  
 DT Journal  
 LA English  
 CC 1-12 (Pharmacology)  
 AB Cultures of **osteoblast**-like cells were established from calvariae of Sprague-Dawley rats. Pentoxifylline [6493-05-6] increased cAMP [60-92-4] levels and Ca uptake in these cultures. However, Ca uptake increased at lower levels than required to increase cAMP levels. Apparently, mechanisms unrelated to cAMP are also involved in these phenomena.  
 ST **osteoporosis** inhibitor evaluation cell culture; pentoxifylline .  
**osteoporosis** cell culture  
 IT **Osteoporosis**  
 (inhibition of, by pentoxifylline, tissue culture method for detn. of)  
 IT Animal tissue culture  
 (of **bone**, **osteoporosis** inhibition by pentoxifylline in)  
 IT 60-92-4 7440-70-2, biological studies  
 RL: BIOL (Biological study)  
 (of **bone**, **osteoporosis** inhibition by pentoxifylline in relation to)  
 IT 6493-05-6  
 RL: BIOL (Biological study)  
 (**osteoporosis** inhibition by, culture method for detn. of)  
 IT 6493-05-6  
 RL: BIOL (Biological study)  
 (**osteoporosis** inhibition by, culture method for detn. of)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



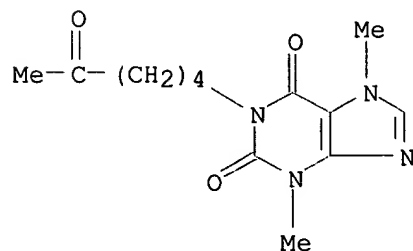
L63 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1983:516034 HCAPLUS  
 DN 99:116034  
 TI Studies on **osteoporoses**. XI. Effects of a methylxanthine derivative  
 AU Robin, John C.; Ambrus, Julian L.  
 CS Roswell Park Mem. Inst., Buffalo, NY, 14263, USA  
 SO J. Med. (Westbury, N. Y.) (1983), 14(2), 137-45  
 CODEN: JNMDBO; ISSN: 0025-7850  
 DT Journal  
 LA English  
 CC 1-12 (Pharmacology)  
 Section cross-reference(s): 14  
 GI



AB Pentoxifylline (I) [6493-05-6] (12 mg/kg i.m. twice daily) prevented exptl. **osteoporosis** in mice. Pentoxifylline (0.1-100 .mu.g/mL) increased Ca<sup>2+</sup> uptake and cAMP [60-92-4] prodn. in **osteoblast**-like **bone** cells isolated from fetal Sprague-Dawley rats. Theor. implications for **osteoblast** control of **bone** resorption are discussed.  
 ST pentoxifylline **osteoporosis**  
 IT **Osteoporosis**  
 (pentoxifylline prevention of, calcium uptake and cyclic AMP formation in **bone** cells in relation to)  
 IT 60-92-4  
 RL: FORM (Formation, nonpreparative)  
 (formation of, in **bone** cells, pentoxifylline effect on, **osteoporosis** in relation to)  
 IT 6493-05-6  
 RL: BIOL (Biological study)  
 (**osteoporosis** prevention by, calcium uptake and cyclic AMP formation in **bone** cells in relation to)  
 IT 7440-70-2, biological studies  
 RL: BIOL (Biological study)  
 (uptake of, by **bone** cells, pentoxifylline effect on, **osteoporosis** in relation to)  
 IT 6493-05-6  
 RL: BIOL (Biological study)  
 (**osteoporosis** prevention by, calcium uptake and cyclic AMP formation in **bone** cells in relation to)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



L63 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2002 ACS  
 AN 1980:69360 HCAPLUS  
 DN 92:69360  
 TI The effects of trental, levamisole and some other cyclic nucleotides on the proliferation of stem **bone** marrow cells (KOE)  
 AU Fedorov, N. A.; Ermil'chenko, G. V.; Koreshkova, N. A.; Stepanova, S. B.  
 CS Lab. Biochem., Cent. Inst. Haematol. Blood Transfus., Moscow, 125167, USSR  
 SO Adv. Biosci. (1979), Volume Date 1978, 24(Cyclic Nucleotides Ther. Perspect.), 217-23  
 CODEN: AVBIB9; ISSN: 0065-3446  
 DT Journal  
 LA English  
 CC 1-4 (Pharmacodynamics)  
 AB The proliferation of mouse **bone** marrow stem cells was increased by 2-h incubation with trental [6493-05-6] (10-3M), levamisole [14769-73-4] (2.5 .times. 10-6M), 1-(N-chloroacetyl aminoethoxy)cyclic AMP [71240-57-8] (10-8M), 8-(N-chloroacetyl aminoethyl amino) cyclic AMP [65259-74-7] (10-8M), or 1-[N-(fluorosulfonyl)benzoyl aminoethoxy] cyclic AMP [71262-88-9] (10-8M).  
 ST **bone** marrow proliferation drug; stem cell proliferation drug; trental **bone** marrow proliferation; levamisole **bone** marrow proliferation; cyclic AMP deriv **bone** marrow  
 IT **Bone marrow**  
 (stem cell, cyclic nucleotides and levamisole and trental stimulation of proliferation of)  
 IT 6493-05-6 14769-73-4 65259-74-7 71240-57-8 71262-88-9  
 RL: BIOL (Biological study)  
 (bone marrow stem cell proliferation stimulation by)  
 IT 6493-05-6  
 RL: BIOL (Biological study)  
 (bone marrow stem cell proliferation stimulation by)  
 RN 6493-05-6 HCAPLUS  
 CN 1H-Purine-2,6-dione, 3,7-dihydro-3,7-dimethyl-1-(5-oxohexyl)- (9CI) (CA INDEX NAME)



=> fil biosis

FILE 'BIOSIS' ENTERED AT 15:43:20 ON 05 AUG 2002  
COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC.(R)

FILE COVERS 1969 TO DATE.

CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 31 July 2002 (20020731/ED)

=> d all tot 183

L83 ANSWER 1 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

AN 1996:273382 BIOSIS

DN PREV199698829511

TI Suppressive effect of N-(benzyloxycarbonyl)-L-phenylalanyl-L-tyrosinal on  
**bone resorption** in vitro and in vivo.

AU Woo, Je-Tae; Yamaguchi, Kohji; Hayama, Takahiro; Kobori, Takeo; Sigeizumi,  
Sanae; Sugimoto, Kikuo; Kondo, Kiyosi; Tsuji, Tomoko (1); Ohba, Yasuo;  
Tagami, Kahori; Sumitani, Koji

CS (1) Sagami Chem. Res. Cent., Nishioonuma 4-4-1, Sagamihara, Kanagawa 229  
Japan

SO European Journal of Pharmacology, (1996) Vol. 300, No. 1-2, pp. 131-135.  
ISSN: 0014-2999.

DT Article

LA English

AB The suppressive effect of N-(benzyloxycarbonyl)-L-phenylalanyl-L-tyrosinal  
on **bone resorption** was examined in vitro and in vivo.

This synthetic **peptidyl aldehyde** was found to be a  
potent and selective cathepsin L inhibitor in our screening for cysteine  
protease inhibitors. In the pit formation assay with unfractionated rat  
bone cells, 1.5 nM of this compound markedly inhibited parathyroid  
hormone-stimulated osteoclastic **bone resorption**. In  
addition, intraperitoneal administration of this **peptidyl  
aldehyde** (2.5-10 mg/kg) for 4 weeks suppressed bone weight loss  
dose dependently in the ovariectomized mouse, experimental model of  
osteoporosis. Hydroxyproline measurement of the decalcified femurs from  
these ovariectomized mice suggested that this compound acts as a  
**bone resorption** suppressor through the inhibition of  
collagen degradation.

CC Cytology and Cytochemistry - Animal \*02506

Biochemical Methods - Proteins, Peptides and Amino Acids \*10054

Biochemical Studies - General 10060

Biochemical Studies - Proteins, Peptides and Amino Acids 10064

Biochemical Studies - Minerals 10069

Enzymes - Methods \*10804

Enzymes - Physiological Studies \*10808

Pathology, General and Miscellaneous - Therapy \*12512

Metabolism - Minerals \*13010

Metabolism - Proteins, Peptides and Amino Acids \*13012

**Bones, Joints, Fasciae, Connective and Adipose Tissue - Anatomy**  
**\*18002**

**Bones, Joints, Fasciae, Connective and Adipose Tissue - Physiology**  
**and Biochemistry \*18004**

**Bones, Joints, Fasciae, Connective and Adipose Tissue - Pathology**  
**\*18006**

Pharmacology - General \*22002

Pharmacology - Drug Metabolism; Metabolic Stimulators \*22003

Pharmacology - Clinical Pharmacology 22005

**Pharmacology - Connective Tissue, Bone and Collagen - Acting Drugs**  
**\*22012**

Developmental Biology - Embryology - Morphogenesis, General \*25508

In Vitro Studies, Cellular and Subcellular \*32600  
BC Muridae \*86375  
IT Major Concepts  
Cell Biology; Development; Enzymology (Biochemistry and Molecular Biophysics); Metabolism; Methods and Techniques; Pathology; Pharmacology; Skeletal System (Movement and Support)  
IT Chemicals & Biochemicals  
CATHEPSIN L; CYSTEINE PROTEASE  
IT Miscellaneous Descriptors  
CATHEPSIN L; COLLAGEN DEGRADATION INHIBITION; CYSTEINE PROTEASE INHIBITOR; DIPEPTIDYL ALDEHYDE; ENZYME INHIBITOR-DRUG; EXPERIMENTAL OSTEOPOROSIS MODEL; IN-VITRO; IN-VIVO; METABOLIC-DRUG; N-(BENZYLOXYCARBONYL)-L-PHENYLALANYL-L-TYROSINAL; OSTEOPOROTIC DRUG CANDIDATE; PHARMACODYNAMICS  
ORGN Super Taxa  
Muridae: Rodentia, Mammalia, Vertebrata, Chordata, Animalia  
ORGN Organism Name  
rat (Muridae)  
ORGN Organism Superterms  
animals; chordates; mammals; nonhuman mammals; nonhuman vertebrates; rodents; vertebrates  
RN 60616-82-2 (CATHEPSIN L)  
37353-41-6 (CYSTEINE PROTEASE)  
  
L83 ANSWER 2 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 1985:93919 BIOSIS  
DN BR28:93919  
TI STUDY OF **ANTIOSTEOPOROTIC** AGENTS IN TISSUE CULTURE.  
AU ROBIN J C; AMBRUS J L  
CS ROSWELL PARK MEMORIAL INST., BUFFALO, NY 14263.  
SO J. Med. (Westbury, N. Y.), (1984 (RECD 1985)) 15 (4), 319-322.  
CODEN: JNMDBO. ISSN: 0025-7850.  
FS BR; OLD  
LA English  
CC Biochemical Studies - General 10060  
Biochemical Studies - Nucleic Acids, Purines and Pyrimidines 10062  
Metabolism - Nucleic Acids, Purines and Pyrimidines \*13014  
**Bones, Joints, Fasciae, Connective and Adipose Tissue - General;**  
**Methods \*18001**  
Pharmacology - Drug Metabolism; Metabolic Stimulators \*22003  
**Pharmacology - Connective Tissue, Bone and Collagen - Acting Drugs**  
**\*22012**  
Tissue Culture, Apparatus, Methods and Media 32500  
BC Muridae 86375  
IT Miscellaneous Descriptors  
RAT **PENTOXIFYLLINE** METABOLIC-DRUG CYCLIC AMP  
RN 60-92-4 (CYCLIC AMP)  
6493-05-6 (PENTOXIFYLLINE)  
  
L83 ANSWER 3 OF 3 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.  
AN 1984:172630 BIOSIS  
DN BA77:5614  
TI STUDIES ON OSTEO POROSSES 11. EFFECTS OF A METHYL XANTHINE DERIVATIVE A PRELIMINARY REPORT.  
AU ROBIN J C; AMBRUS J L  
CS ROSWELL PARK MEMORIAL INST., BUFFALO, N.Y. 14263.  
SO J MED (WESTBURY), (1983) 14 (2), 137-146.  
CODEN: JNMDBO. ISSN: 0025-7850.  
FS BA; OLD  
LA English  
AB Heparin (500 U/kg s.c. BID [twice a day]) induced significant osteoporosis in C3H/St(Ha) female mice after 3 mo. treatment. **Pentoxifylline** (12 mg/kg i.m. BID) prevented this experimental osteoporosis. Osteoporosis

was measured by in vivo neutron activation analysis and results were confirmed by atomic absorption spectroscopy. **Pentoxifylline** (0.1-100 .mu.g/ml) increased Ca uptake and cAMP production in osteoblast-like bone cells isolated from fetal Sprague-Dawley rats. Theoretical implications for osteoblast control of **bone resorption** are discussed.

CC Cytology and Cytochemistry - Animal 02506  
 Biochemical Studies - General 10060  
 Biochemical Studies - Nucleic Acids, Purines and Pyrimidines 10062  
 Biochemical Studies - Carbohydrates 10068  
 Biochemical Studies - Minerals 10069  
 Biophysics - General Biophysical Studies 10502  
 Biophysics - General Biophysical Techniques 10504  
 Metabolism - Minerals \*13010  
 Metabolism - Nucleic Acids, Purines and Pyrimidines 13014  
 Muscle - General; Methods 17501  
**Bones, Joints, Fasciae, Connective and Adipose Tissue - Pathology**  
**\*18006**  
 Integumentary System - General; Methods 18501  
**Pharmacology - Connective Tissue, Bone and Collagen - Acting Drugs**  
**\*22012**  
 Routes of Immunization, Infection and Therapy 22100  
 Toxicology - General; Methods and Experimental 22501  
 Toxicology - Pharmacological Toxicology \*22504  
 Developmental Biology - Embryology - General and Descriptive 25502  
 BC Muridae 86375  
 IT Miscellaneous Descriptors  
 MOUSE RAT **PENTOXIFYLLINE** METABOLIC-DRUG CYCLIC AMP CALCIUM  
 UPTAKE HEPARIN INDUCED  
 RN 60-92-4 (CYCLIC AMP)  
**6493-05-6 (PENTOXIFYLLINE)**  
 7440-70-2 (CALCIUM)  
 9005-49-6 (HEPARIN)  
 28109-92-4D (METHYL XANTHINE)

=> fil medline

FILE 'MEDLINE' ENTERED AT 15:55:16 ON 05 AUG 2002

FILE LAST UPDATED: 3 AUG 2002 (20020803/UP). FILE COVERS 1958 TO DATE.

On June 9, 2002, MEDLINE was reloaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2002 vocabulary. Enter HELP THESAURUS for details.

THIS FILE CONTAINS CAS REGISTRY NUMBERS FOR EASY AND ACCURATE SUBSTANCE IDENTIFICATION.

=> d 1110 all tot

L110 ANSWER 1 OF 7 MEDLINE  
 AN 97406728 MEDLINE  
 DN 97406728 PubMed ID: 9260111  
 TI Tumor necrosis factor-alpha and interleukin-6 release from white blood cells induced by different graft materials in vitro are affected by **pentoxifylline** and iloprost.  
 AU Swartbol P; Truedsson L; Parsson H; Norgren L  
 CS Department of Surgery, Lund University, Sweden.  
 SO JOURNAL OF BIOMEDICAL MATERIALS RESEARCH, (1997 Sep 5) 36 (3) 400-6.  
 Journal code: 0112726. ISSN: 0021-9304.  
 CY United States

DT Journal; Article; (JOURNAL ARTICLE)  
 LA **English**  
 FS **Priority Journals**  
 EM 199709  
 ED Entered STN: 19971008  
 Last Updated on STN: 19971008  
 Entered Medline: 19970923

AB Inflammatory mediators such as cytokines produced by white blood cells (WBCs) at the site of implantation are important for the biocompatibility of vascular grafts. The aim of the present study was to demonstrate the tumor necrosis factor-alpha (TNF-alpha) and interleukin-6 (IL-6) release from WBCs incubated with expanded polytetrafluoroethylene (ePTFE) or woven Dacron grafts. In a second series the effects of **pentoxifylline** (PTX) and iloprost (ILO), both known to inhibit white blood cell function, on this release were determined. Woven Dacron grafts induced significantly higher release of both TNF-alpha and IL-6 compared to ePTFE. TNF-alpha was detectable first after 2 h, whereas IL-6 was seen after 4 h. Maximum values were reached at 6 and 12 h, respectively. The addition of an endotoxin gave more pronounced patterns of cytokine release not influenced by time. Preincubation with both PTX and ILO at final concentrations of 100 and 10 micrograms/mL, respectively, reduced significantly the TNF-alpha release without differences between the two graft materials, whereas the effect on the IL-6 release varied and was graft material-dependent. In conclusion, graft material-dependent induction of TNF-alpha and IL-6 from WBCs was demonstrated. PTX and ILO influenced the cytokine release. It might be suggested that graft material-induced cytokine production could contribute to intimal hyperplasia in vivo. The present findings encourage further studies regarding graft material-induced WBC alterations and the role of pharmacologic agents influencing this function.

CT Check Tags: Human; Support, Non-U.S. Gov't  
 \*Biocompatible Materials: AE, adverse effects  
 \*Bioprosthesis: AE, adverse effects  
 \*Iloprost  
 \*Interleukin-6: SE, secretion  
 \*Leukocytes: DE, drug effects  
 Leukocytes: ME, metabolism  
 \*Pentoxifylline  
 \*Tumor Necrosis Factor: SE, secretion

RN 6493-05-6 (**Pentoxifylline**); 78919-13-8 (Iloprost)  
 CN 0 (Biocompatible Materials); 0 (Interleukin-6); 0 (Tumor Necrosis Factor)

L110 ANSWER 2 OF 7 MEDLINE  
 AN 94055565 MEDLINE  
 DN 94055565 PubMed ID: 8237250  
 TI **Pentoxifylline** inhibits the proliferation and glycosaminoglycan synthesis of cultured fibroblasts derived from patients with Graves' ophthalmopathy and pretibial myxoedema.  
 AU Chang C C; Chang T C; Kao S C; Kuo Y F; Chien L F  
 CS Department of Dermatology, College of Medicine, National Taiwan University, Taipei, Republic of China.  
 SO ACTA ENDOCRINOLOGICA, (1993 Oct) 129 (4) 322-7.  
 Journal code: 0370312. ISSN: 0001-5598.  
 CY Denmark  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA **English**  
 FS **Priority Journals**  
 EM 199312  
 ED Entered STN: 19940117  
 Last Updated on STN: 19940117  
 Entered Medline: 19931217

AB Excessive amounts of glycosaminoglycans accumulate in the extraocular muscles of patients with Graves' ophthalmopathy and in the affected skin

of patients with pretibial myxoedema. It is widely accepted that fibroblasts are the sources of glycosaminoglycan synthesis. **Pentoxifylline**, an analogue of the methylxanthine theobromine, inhibits the proliferation and certain biosynthetic activities of fibroblasts derived from normal human skin and from skin of patients with some fibrotic disorders. Our objective was to determine whether **pentoxifylline** has similar effects on fibroblasts derived from patients with Graves' ophthalmopathy and pretibial myxoedema and could serve as a candidate for the treatment of these manifestations. Fibroblasts from the extraocular muscles of two patients with Graves' ophthalmopathy and normal extraocular muscles of two subjects with strabismus, as well as the affected skin of two patients with pretibial myxoedema were cultured in vitro in the presence and absence of **pentoxifylline** to assay its effect on the proliferation of fibroblasts and their production of glycosaminoglycans. In subconfluent fibroblast cultures, **pentoxifylline** treatment caused a dose-dependent inhibition of serum-driven fibroblast proliferation. In confluent fibroblast cultures both in the presence and absence of serum, exposure to **pentoxifylline** similarly resulted in a dose-dependent inhibition of glycosaminoglycan synthesis for all these different kinds of fibroblasts. These findings may form the rationale for a clinical trial using **pentoxifylline** for the treatment of Graves' ophthalmopathy and pretibial myxoedema.

CT Check Tags: Female; Human; Male; Support, Non-U.S. Gov't

Adult

Cell Division: DE, drug effects

Cells, Cultured

Child, Preschool

\*Fibroblasts: ME, metabolism

\*Fibroblasts: PA, pathology

\*Glycosaminoglycans: BI, biosynthesis

Graves' Disease: ME, metabolism

\*Graves' Disease: PA, pathology

Middle Age

Myxedema: ME, metabolism

\*Myxedema: PA, pathology

Oculomotor Muscles: ME, metabolism

Oculomotor Muscles: PA, pathology

\***Pentoxifylline**: PD, pharmacology

Skin: ME, metabolism

Skin: PA, pathology

**Tibia**

RN **6493-05-6 (Pentoxifylline)**

CN 0 (Glycosaminoglycans)

L110 ANSWER 3 OF 7 MEDLINE

AN 86202007 MEDLINE

DN 86202007 PubMed ID: 2939303

TI Trends in revascularization of the lower extremity.

AU Hallett J W Jr

SO MAYO CLINIC PROCEEDINGS, (1986 May) 61 (5) 369-76.

Journal code: 0405543. ISSN: 0025-6196.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Abridged Index Medicus Journals; Priority Journals

EM 198605

ED Entered STN: 19900321

Last Updated on STN: 19900321

Entered Medline: 19860528

AB Several trends are evident in revascularization of the lower extremity. Currently, few patients with severe leg ischemia undergo amputation without prior surgical or angioplasty attempts at revascularization.

Percutaneous balloon angioplasty and thrombolytic therapy have had a definite but limited influence on the treatment of all patients with lower-limb arterial disease. Although **pentoxifylline**, a hemorrheologic agent, is being widely used, it has not changed the need for surgical intervention in patients with severe arterial disease. In the aggressive approach to save legs with severe popliteal-tibial disease, the use of femorotibial grafts is increasing. In situ saphenous vein grafting is becoming the operation of choice for infrapopliteal occlusive disease. For most patients with severe lower-extremity arterial occlusive disease, a properly selected and conducted operation remains the safest and most durable treatment.

CT Check Tags: Human  
 Angioplasty, Balloon  
 Aorta, Abdominal: SU, surgery  
 Arterial Occlusive Diseases: DT, drug therapy  
 Arterial Occlusive Diseases: RA, radiography  
 \*Arterial Occlusive Diseases: SU, surgery  
 Femoral Artery: SU, surgery  
 Iliac Artery: SU, surgery  
 Lasers: TU, therapeutic use  
 \*Leg: BS, blood supply  
**Pentoxifylline: TU, therapeutic use**  
 Popliteal Artery: SU, surgery  
 Subtraction Technique  
**Tibia: BS, blood supply**  
 Ultrasonography  
 RN **6493-05-6 (Pentoxifylline)**

L110 ANSWER 4 OF 7 MEDLINE  
 AN 86002672 MEDLINE  
 DN 86002672 PubMed ID: 3899404  
 TI Warfarin versus dipyridamole-aspirin and **pentoxifylline**-aspirin for the prevention of prosthetic heart valve thromboembolism: a prospective randomized clinical trial.  
 AU Mok C K; Boey J; Wang R; Chan T K; Cheung K L; Lee P K; Chow J; Ng R P; Tse T F  
 SO CIRCULATION, (1985 Nov) 72 (5) 1059-63.  
 Journal code: 0147763. ISSN: 0009-7322.  
 CY United States  
 DT (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LA **English**  
 FS Abridged Index Medicus Journals; **Priority Journals**  
 EM 198511  
 ED Entered STN: 19900321  
 Last Updated on STN: 19950206  
 Entered Medline: 19851121  
 AB In a prospective, randomized, parallel study, two regimens of platelet-suppressant therapy (PST)--dipyridamole-aspirin and **pentoxifylline**-aspirin--were compared with standard oral anticoagulation with warfarin in the prevention of prosthetic heart valve thromboembolism. In the entire group of 254 patients followed for 395.6 patient-years, the thromboembolic rate was significantly less in the warfarin group (warfarin vs dipyridamole-aspirin,  $p$  less than .005; warfarin vs **pentoxifylline**-aspirin,  $p$  less than .05). Subgroup analysis disclosed that, in patients with isolated mitral valve replacement, warfarin was superior to both of the PSTs with respect to the prevention of thromboembolism (warfarin vs dipyridamole-aspirin,  $p$  = .005; warfarin vs **pentoxifylline**-aspirin,  $p$  less than .05). Furthermore, a significant number of our patients could not tolerate the antiplatelet agents. However, in the rare situation in which repeated significant bleeding occurs despite careful adjustment of the dosage of

warfarin, PST may be an acceptable alternate method of thromboembolism prophylaxis.

CT Check Tags: Comparative Study; Female; Human; Male; Support, Non-U.S. Gov't

Adult

\*Aspirin: TU, therapeutic use

Clinical Trials

\*Dipyridamole: TU, therapeutic use

Drug Combinations

**\*Heart Valve Prosthesis**

Middle Age

**\*Pentoxifylline: TU, therapeutic use**

Postoperative Complications: DT, drug therapy

\*Postoperative Complications: PC, prevention & control

Prospective Studies

Random Allocation

\*Theobromine: AA, analogs & derivatives

Thromboembolism: DT, drug therapy

\*Thromboembolism: PC, prevention & control

\*Warfarin: TU, therapeutic use

RN 50-78-2 (Aspirin); 58-32-2 (Dipyridamole); **6493-05-6**

(**Pentoxifylline**); 81-81-2 (Warfarin); 83-67-0 (Theobromine)

CN 0 (Drug Combinations)

L110 ANSWER 5 OF 7 MEDLINE

AN 85133261 MEDLINE

DN 85133261 PubMed ID: 6098626

TI Study of antiosteoporotic agents in tissue culture.

AU Robin J C; Ambrus J L

SO JOURNAL OF MEDICINE, (1984) 15 (4) 319-22.

Journal code: 7505566. ISSN: 0025-7850.

CY United States

DT Journal; Article; (JOURNAL ARTICLE)

LA **English**

FS **Priority Journals**

EM 198504

ED Entered STN: 19900320

Last Updated on STN: 19900320

Entered Medline: 19850419

AB Cultures of osteoblast-like cells were established from calvariae of Sprague-Dawley rats. **Pentoxifylline** increased cAMP levels and calcium uptake in these cultures. However, calcium uptake increased at lower levels than required to increase cAMP levels. Thus, it is likely that cAMP unrelated mechanisms are also involved in these phenomena.

CT Check Tags: Animal

Calcium: ME, metabolism

Cells, Cultured

Cyclic AMP: ME, metabolism

Drug Evaluation, Preclinical

Osteoblasts: ME, metabolism

**\*Osteoporosis: DT, drug therapy**

**\*Pentoxifylline: PD, pharmacology**

**Pentoxifylline: TU, therapeutic use**

Rats

Rats, Inbred Strains

\*Theobromine: AA, analogs & derivatives

RN 60-92-4 (Cyclic AMP); **6493-05-6 (Pentoxifylline)**; 7440-70-2

(Calcium); 83-67-0 (Theobromine)

L110 ANSWER 6 OF 7 MEDLINE

AN 83293098 MEDLINE

DN 83293098 PubMed ID: 6310016

TI Studies on osteoporoses. XI. Effects of a methylxanthine derivative. A

preliminary report.

AU Robin J C; Ambrus J L  
SO JOURNAL OF MEDICINE, (1983) 14 (2) 137-45.  
Journal code: 7505566. ISSN: 0025-7850.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198310  
ED Entered STN: 19900319  
Last Updated on STN: 19900319  
Entered Medline: 19831021

AB Heparin (500 U/kg s.c. B.I.D.) induced significant osteoporosis in C3H/St(Ha) female mice after 3 months of treatment. **Pentoxifylline** (12 mg/kg i.m. B.I.D.) prevented this experimental osteoporosis. Osteoporosis was measured by in vivo neutron activation analysis and results were confirmed by atomic absorption spectroscopy. **Pentoxifylline** (0.1-100 microgram/ml) increased calcium uptake and cAMP production in osteoblast-like bone cells isolated from fetal Sprague-Dawley rats. Theoretical implications for osteoblast control of bone resorption are discussed.

CT Check Tags: Animal; Female  
Bone Resorption  
Calcium: ME, metabolism  
Cyclic AMP: ME, metabolism  
Heparin  
Mice  
Mice, Inbred C3H  
Neutron Activation Analysis  
Osteoblasts: DE, drug effects  
Osteoblasts: ME, metabolism  
Osteoporosis: CI, chemically induced  
\*Osteoporosis: PC, prevention & control  
\*Pentoxifylline: TU, therapeutic use  
Rats  
Rats, Inbred Strains  
Spectrophotometry, Atomic Absorption  
Stimulation, Chemical  
\*Theobromine: AA, analogs & derivatives

RN 60-92-4 (Cyclic AMP); 6493-05-6 (**Pentoxifylline**); 7440-70-2 (Calcium); 83-67-0 (Theobromine); 9005-49-6 (Heparin)

L110 ANSWER 7 OF 7 MEDLINE  
AN 82107554 MEDLINE  
DN 82107554 PubMed ID: 6948393  
TI Effect of **pentoxifylline** on red cell flexibility in arterio-sclerotic patients and in patients with heart valve prosthesis.  
AU Johnsson R; Harjola P T; Siltanen P  
SO SCANDINAVIAN JOURNAL OF CLINICAL AND LABORATORY INVESTIGATION. SUPPLEMENT, (1981) 156 297-300.  
Journal code: 2984789R. ISSN: 0085-591X.  
CY Norway  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Priority Journals  
EM 198203  
ED Entered STN: 19900317  
Last Updated on STN: 19900317  
Entered Medline: 19820313

AB Red cell flexibility (RCF) was studied in 40 patients with severe occlusive arterio-sclerotic disease of the lower extremities (Group I) and in 17 patients with aortic or mitral valve prosthesis (Group II). RCF was studied in terms of rigidity and fragility using a filtration method.

**Pentoxifylline**, which according to our previous observations increases the flexibility of red cells in healthy subjects, also markedly improved RCF in Group I, particularly in terms of fragility. The **pentoxifylline**-induced increase in RCF was less marked in Group II; only the rigidity parameter was significantly decreased. Reid et al [11] reported decreased deformability of red cells in patients with intermittent claudication. Since then a few other studies have been published, in which decreased red cell flexibility (RCF) was observed in patients with diabetic vascular disease [1, 4, 9, 12] and cerebral arteriosclerosis [10]. The objective of this study was to compare RCF in patients with widespread arteriosclerosis and heart valve prosthesis, the latter condition inducing a 'pure' mechanical red cell injury. Both patient groups were also studied after the administration of **pentoxifylline**, a drug known to improve the flexibility of normal red cells--see [6].

CT Check Tags: Female; Human; Male  
 Adult  
 Aortic Valve  
 \*Arteriosclerosis: BL, blood  
 Arteriosclerosis: DT, drug therapy  
 \*Erythrocyte Membrane: DE, drug effects  
 \*Erythrocytes: DE, drug effects  
 \*Heart Valve Prosthesis  
 Hemoglobins  
 Middle Age  
 Mitral Valve  
 \*Pentoxifylline: PD, pharmacology  
 Pentoxifylline: TU, therapeutic use  
 \*Theobromine: AA, analogs & derivatives  
 RN 6493-05-6 (Pentoxifylline); 83-67-0 (Theobromine)  
 CN 0 (Hemoglobins)

=> d his

(FILE 'HOME' ENTERED AT 14:51:46 ON 05 AUG 2002)  
 SET COST OFF

FILE 'REGISTRY' ENTERED AT 14:51:57 ON 05 AUG 2002

L1 1 S PROTEASOME/CN  
 L2 1 S CHYMOTRYPSIN/CN  
 L3 5 S 6493-05-6 OR 133343-34-7 OR 134381-21-8 OR 158442-41-2 OR 179  
 L4 1 S NLVS/CN  
 L5 3 S C28H43IN4O8S/MF AND 46.150.18/RID AND 1/NR  
 L6 41 S C32H50N4O8/MF  
 L7 13 S L6 AND 4/SQL  
 L8 3 S C28H50N4O7/MF AND OC2/ES  
 L9 2 S L8 NOT T/ELS  
 L10 6 S C15H24N2O7S/MF AND NC4/ES  
 L11 5 S L10 NOT GLYCINE  
 L12 3 S L11 NOT T/ELS  
 L13 1 S C19H25BN4O4/MF AND NC2NC2/ES  
 L14 1 S L3 AND L7  
 L15 2 S L5 NOT 125I  
 L16 10 S L3,L4,L9,L12,L13,L14,L15  
 L17 28 S C34H48N4O5/MF  
 L18 2 S L17 AND OC2/ES  
 L19 12 S L16,L18  
 L20, STR  
 L21 1 S L20 CSS  
 L22 2 S L20  
 L23 27 S L20 FUL  
 SAV L23 GITOMER695/A

L24 15 S L20 CSS FUL SUB=L23  
 SAV L24 GITOMER695A/A  
 L25 12 S L23 NOT L24  
 L26 8 S L25 NOT (C5-C6-C6 OR NCNC2-SC4)/ES  
 L27 6 S L26 NOT (T OR SI)/ELS  
 L28 16 S L19,L27

FILE 'HCAPLUS' ENTERED AT 15:15:12 ON 05 AUG 2002

L29 2069 S L28  
 L30 1598 S L29 AND (PY<=1998 OR PRY<=1998 OR AY<=1998)  
 L31 73 S L30 AND L1  
 L32 8 S L30 AND L2  
 E BONE/CT  
 E E3+ALL  
 L33 72376 S E8+NT  
 E E56+ALL  
 L34 3731 S E4+NT  
 L35 314 S E8+NT  
 L36 2882 S E9+NT  
 L37 2828 S E10+NT  
 E BONE/CT  
 E E3+ALL  
 E E58+ALL  
 L38 52158 S E3+NT  
 E OSTEOPOROSIS/CT  
 E E3+ALL  
 L39 7181 S E6+NT  
 E HYPERPARATHYROIDISM/CT  
 E E3+ALL  
 L40 1544 S E2  
 L41 988 S METAST?(L)BONE(L) (DISEASE OR DISORDER)  
 L42 1026 S BONE, DISEASE/CT (L) FRACTURE  
 L43 803 S BONE, NEOPLASM/CT (L) METAST?  
 L44 141 S OSTEOLYT?(L)BONE(L) (DISEASE OR DISORDER)  
 L45 2637 S BONE(L) (SURGERY OR SURGICAL OR POSTPLASTIC OR POST PLASTIC)  
 L46 29 S L30 AND L33-L45  
 L47 2 S L31,L32 AND L46  
 L48 3 S PROSTH?/CW AND L30  
 L49 1 S ISOPRENOID AND L30  
 L50 4 S L47-L49  
 L51 31 S L46,L50  
 L52 2 S L30 AND (MUNDY G? OR GARRETT I? OR ROSSINI G?)/AU  
 L53 2 S OSTEOSCREEN?/PA,CS AND L30  
 L54 32 S L51-L53  
 L55 30 S L54 AND (1 OR 63)/SC,SX  
 L56 2 S L54 NOT L55  
 L57 22 S L55 AND (BONE OR OSTEO? OR JOINT OR CARTILAG? OR SKELET? OR H  
 L58 18 S L55 AND (FRACTURE OR PROSTHE? OR ?NEOPLAS? OR ?TUMOR? OR ?MET  
 L59 28 S L57,L58  
 L60 2 S L55 NOT L59  
 L61 1 S L60 NOT DEXAMETHASONE  
 L62 29 S L59,L61  
 L63 25 S L62 AND (1 OR 63)/SC  
 L64 4 S L62 NOT L63  
 SEL HIT RN L63

FILE 'REGISTRY' ENTERED AT 15:29:28 ON 05 AUG 2002

L65 4 S E1-E4  
 L66 18 S L1,L2,L28,L65

FILE 'REGISTRY' ENTERED AT 15:30:06 ON 05 AUG 2002

FILE 'HCAPLUS' ENTERED AT 15:30:40 ON 05 AUG 2002

FILE 'BIOSIS' ENTERED AT 15:31:31 ON 05 AUG 2002

L67 3190 S L28  
L68 11694 S EPOXOMICIN# OR EPOXOMYCIN# OR PS341 OR PS 341 OR NLVS OR PSI  
L69 2936 S PENTOXIFYLLIN?  
L70 14427 S L67-L69  
L71 170 S L70 AND 18006/CC  
L72 363 S L70 AND 1800#/CC  
L73 112 S L70 AND 22012/CC  
L74 64 S L73 AND L71,L72  
L75 11424 S L70 AND PY<=1998  
L76 290 S L75 AND L71,L72  
L77 82 S L75 AND L73  
L78 57 S L74 AND L77  
L79 52 S \*1800#/CC AND L78  
L80 50 S \*22012/CC AND L78  
L81 53 S L79,L80  
L82 9 S L81 AND (BONE RESORPTION OR ANTIOSTEOPOR?)  
SEL DN AN 2 6 7  
L83 3 S L82 AND E5-E10  
L84 4 S L70 AND (MUNDY G? OR GARRETT I? OR ROSSINI G? OR GARRETT R?)/  
L85 0 S L70 AND OSTEOSCREEN?/CS

FILE 'BIOSIS' ENTERED AT 15:43:20 ON 05 AUG 2002

FILE 'MEDLINE' ENTERED AT 15:43:28 ON 05 AUG 2002

L86 11161 S L70  
E BONE AND BONES/CT  
L87 102 S E3+NT AND L86  
E BONE DISEASE/CT  
L88 58 S E8+NT AND L86  
E HYPERPARATHYROIDISM/CT  
L89 129 S E3+NT AND L86  
E OSTEOPOROSIS/CT  
L90 9 S E3+NT AND L86  
E FRACTURE/CT  
L91 11 S E106+NT AND L86  
L92 1 S (E4+NT OR E59+NT) AND L86  
L93 2 S (MUNDY G? OR GARRETT I? OR ROSSINI G? OR GARRETT R?)/AU AND L  
L94 177 S L87-L92 AND PY<=1998  
L95 3 S L94 NOT AB/FA  
E PROSTH/CT  
L96 67 S E7+NT AND L86  
L97 52 S L96 AND PY<=1998  
L98 220 S L94,L97  
E BONE DEMINERALIZATION/CT  
L99 0 S E11+NT AND L86  
L100 17 S E33+NT AND L86  
L101 22 S E40+NT AND L86  
E BONE MINERALIZATION/CT  
E E3+ALL  
L102 4 S E2+NT AND L86  
E BONE REMINERALIZATION/CT  
E E2+ALL  
L103 1 S E2+NT AND L86  
L104 25 S L100-L103 AND PY<=1998  
L105 6 S L98,L104 NOT AB/FA  
L106 218 S L98,L104 NOT L105  
L107 206 S PRIORITY JOURNALS/FS AND L106  
L108 180 S ENGLISH/LA AND L106  
L109 171 S L107 AND L108  
L110 7 S L28 AND L109  
SEL DN AN 5 6

L111 164 S L109 NOT L110

FILE 'MEDLINE' ENTERED AT 15:55:16 ON 05 AUG 2002